MAILED
7-22-10 jh

Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor
Richard H. Opper, Director

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

July 22, 2010

Mr. Gary Keeler
BUTTE-SILVER BOW LANDFILL
126 West Granite Street
Butte, MT 59701-9216

RE: **CLOSED BUTTE-SILVER BOW COUNTY LANDFILL – LICENSE #20**
APRIL 2010 GROUNDWATER MONITORING RESULTS

Dear Mr. Keeler:

The Department has reviewed the April 2010 groundwater monitoring results for the closed Butte-Silver Bow County Class II Landfill. The report meets the requirements of Administrative Rules of Montana Title 17, Chapter 50, Subchapter 13.

The facility remains in corrective action with semi-annual monitoring at this time. If you have any questions or comments regarding this review, please contact me at the Permitting and Compliance Division, Waste and Underground Tank Management Bureau, Solid Waste Section.

Sincerely,

Martin Van Oort
Environmental Science Specialist
Solid Waste Program
Phone: 406-444-2802, Fax: 406-444-1374
E-mail: mvanoort@mt.gov

cc: Mr. Brad Hollamon, Pioneer Technical Services, PO Box 3445, Butte, MT 59702

File: Closed\Silver Bow Co.\Butte-Silver Bow Class II\License #20\Groundwater Monitoring
Path: G:\WUT\SWS\GWater\Responses\Silver Bow Co\2010-04_cl_bsb_20_GW.doc

Correspondence Slip

Date Requested: 7/16/10

Originator: MVO

Date Needed By: 7/29/10

REVIEW ROUTING

Name	Task	Initial/Date
Admin	Proof	Jh / 7-16
Mary H	Review	mh / 7-16
Darrell	↓	DOS / 7-20-10
Rick	↓	RT / 7-21-10

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Copy of letter for file needed? [✓ Y] N

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EMAIL copy sent to Project Originator? Y N

MAILED
3-17-10

Montana Department of
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Brian Schweitzer, Governor
Richard H. Opper, Director

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

March 17, 2010

Mr. Gary Keeler
BUTTE-SILVER BOW LANDFILL
126 West Granite Street
Butte, MT 59701-9216

RE: **CLOSED BUTTE-SILVER BOW COUNTY LANDFILL – LICENSE #20**
OCTOBER 2009 GROUNDWATER MONITORING RESULTS

Dear Mr. Keeler:

The Department has reviewed the October 2009 groundwater monitoring results for the closed Butte-Silver Bow County Class II Landfill. The report meets the requirements of Administrative Rule of Montana 17.50.708. The Department provides the following comments for your consideration:

- While the drawdown at wells BSB-A1 and CLK-2 slightly exceeded EPA guidelines for low flow sampling (≤0.3ft), field parameter measurements showed good stability indicating that a representative sample was collected.

The Department is concerned with the increasing trend for Vinyl chloride in well BSB-A6R. The concentration of Vinyl chloride in well BSB-A6R is now nearly four times the federal MCL and forty times the Montana Human Health Standard for groundwater. This trend may indicate that natural degradation of Vinyl chloride to Ethene is not occurring at the facility. If this trend continues, VOC samples may need to be collected from CLK-2 to ensure Vinyl chloride is not migrating off site.

The facility remains in corrective action with semi-annual monitoring at this time. If you have any questions or comments regarding this review, please contact me at the Permitting and Compliance Division, Waste and Underground Tank Management Bureau, Solid Waste Section.

Sincerely,

Martin Van Oort
Environmental Science Specialist
Solid Waste Program
Phone: 406-444-2802, Fax: 406-444-1374
E-mail: mvanoort@mt.gov

cc: Mr. Brad Hollamon, Pioneer Technical Services, PO Box 3445, Butte, MT 59702

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Path: G:\WUT\SWS\GWater\Responses\Silver Bow Co\2009-10_cl_bsb_20_GW.doc

Correspondence Slip

Project ID: ______

Requested: 3/16/10

Needed By: 3/18/10

Originator: MVO

Org(s)/Mail Code: ______

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Name	Task	Initial/Date
Admin	Proof	Jh, 3-16-10
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Rick	Review	RT, 3-17-10
		/

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Copy of letter for file needed? [✓ Y] N

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7-31-09 Sh

Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

July 30, 2009

Mr. Gary Keeler, *Manager*
BUTTE-SILVER BOW LANDFILL
126 West Granite Street
Butte, MT 59701-9216

RE: **CLOSED BUTTE-SILVER BOW COUNTY LANDFILL – LICENSE #20**
REVIEW OF OLD SILVER BOW LANDFILL/CLARK TAILINGS MARCH 2009 GROUNDWATER MONITORING RESULTS

Dear Mr. Keeler:

The Department has reviewed the March 2009 Groundwater Monitoring Report for the closed Butte-Silver Bow County Class II Landfill. The report meets the requirements of Administrative Rule of Montana (ARM) 17.50.708. The Department provides the following comments for your consideration:

- Please include a calculation of the confidence level for each parameter in the statistical analysis tables. For the non parametric prediction limit analysis used at this facility the confidence level can be calculated by the following formula:
  Confidence = 100 * i / (n + 1)
  Where, i is the rank of the value used for comparison (ranked from lowest to highest), and n is the total number of background samples. If the maximum value is the value used for comparison, i and n will be equal.
- The drawdown at wells BSB-A1 and BSB-A6R slightly exceeded EPA guidelines for low flow sampling (<0.3ft drawdown). A small reduction in the purging rate should reduce the drawdown at these wells.
- The sample from BSB-A6R for cyanide was received by the lab with a pH of ~8, less than the required pH >12. This improper preservation could have contributed to the anomalous cyanide value reported for BSB-A6R. Please ensure all samples are properly preserved in future sampling events
- Sulfate and chloride were detected in the field blank at concentrations of 1220 mg/L and 31.9 mg/L, respectively. Because of this blank contamination the results for sulfate and chloride from all samples are invalid. All sulfate and chloride results from this sampling event should be excluded from future statistical analyses.

The Department also has received the June 5, 2009 letter from Butte-Silver Bow Public Works, including comments regarding methane monitoring. Thank you for your timely response regarding the status of methane monitoring at this facility. The Department realizes that the closing of this facility was a complex situation and that routine methane monitoring was not addressed during that process. After a thorough review of the situation, the Department has determined that quarterly methane monitoring at the facility boundary as described in ARM 17.50.511(1)(g) and (f) will not be required. However, because the corrective measures in place at the closed Butte-Silver Bow Landfill include passive methane venting as a part of the groundwater remedy, the Department requests that methane emissions be measured periodically. These methane measurements can utilize existing groundwater wells and the passive methane vents already in place, and may be conducted concurrently with the semi-annual groundwater monitoring. Periodic methane measurements will assist in monitoring the effectiveness of the corrective measures. Additionally, to ensure public safety, the Department requests that methane concentrations also be measured in any enclosed structures at the facility.

The facility remains in corrective action with semi-annual monitoring at this time. If you have any questions or comments regarding this review, please contact me at the Permitting and Compliance Division, Waste and Underground Tank Management Bureau, Solid Waste Section.

Sincerely,

Martin Van Oort
Environmental Science Specialist
Solid Waste Program
Phone: 406-444-2802, Fax: 406-444-1374
E-mail: mvanoort@mt.gov

File: Closed\Silver Bow Co.\Butte-Silver Bow Class II\License #20\Groundwater Monitoring
Path: G:\WUT\SWS\GWater\Responses\Silver Bow Co\2009-03_cl_bsb_#20_GW.doc
cc: Mr. Brad Hollamon, Pioneer Technical Services, PO Box 3445, Butte, MT 59702

Correspondence Slip

Name:

Requested: 7/27/09

Needed By: ~~[illegible]~~ 7/30/09

Originator: MVO

Org(s)/Mail Code:

REVIEW ROUTING

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Rick	Review	RT, 7-30-09

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Copy of letter for file needed? [✓ Y] N

PIONEER
TECHNICAL SERVICES, INC.

Closed

County Silver Bow
Facility & # Butte-Silver Bow #20

Closure
Finan Assur
GW Corr Meas
[✓ GW Monitoring]
GW Reports
Inspections
Other: __________

Landfarm
Liner
Methane
O & M
Run-on

December 6, 2010

Mr. Martin Van Oort
Montana DEQ/Solid Waste Program
P.O Box 200901
Helena, MT 59620-0901

RE: Old Butte-Silver Bow County Landfill/Clark Tailings

Dear Martin:

Enclosed please find results from the Old Butte-Silver Bow County Landfill/Clark Tailings September 2010 semi-annual groundwater monitoring event. The following have been included for your information:

- September 2010 sampling summary;
- Table 1 analytical data summary;
- Electronic copy of the table oldlfctsept10 (non-parametric comparison of wells);
- Groundwater field parameters collected in the field;
- Copy of field notes;
- Trend graphs of detected compounds;
- Groundwater potentiometric surface map for September 2010; and
- Analytical data from Pace Labs in Minneapolis, Minnesota.

The calculated Confidence Level of 97.2 % was found using the formula n/(n+k), where n is the total number of background samples collected and k is the number of future sampling events. (Section 4.2.1 Non-Parametric Prediction Intervals, Pages 61-63 and Table A-7 Appendix A. Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities. Addendum to Interim Final Guidance. Office of Solid Waste Permits and State Programs Division, U.S. EPA , July 1992.)

The groundwater velocity was calculated using Darcy's Law and the equation for the seepage velocity. The average groundwater velocity for September 2010 sampling event was 0.39 ft/day. The hydraulic conductivity value used to obtain the GW velocity was obtained from the Corrective Measures Assessment Report (Pioneer Technical Services, Inc., April 2009) and from pumping data from the March 2009 sampling.

Voluntary methane monitoring of the interior of the site buildings, vents and monitoring wells was also completed during the September 2010 sampling event and was sent to DEQ in a separate report.

Sincerely,

Brad Hollamon

Brad Hollamon
Senior Technician

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DEC 07 2010
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WASTE & UNDERGROUND TANK
MANAGEMENT BUREAU

Encl.
cc. Gary Keeler, BSB Landfill Manager
Shawn Bisch, Pioneer Technical Services Inc.

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201 East Broadway, Suite C
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Fax (406) 442-1158

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Butte, MT 59701
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Fax (406) 782-5866

ANACONDA
307 East Park Street, Suite 421
Anaconda, MT 59711
Phone (406) 563-9371
Fax (406) 563-9372

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TECHNICAL SERVICES, INC.

P.O Box 3445, Butte, MT 59702
www.pioneer-technical.com

December 6, 2010

Mr. Martin Van Oort
Montana DEQ/Solid Waste Program
P.O Box 200901
Helena, MT 59620-0901

RE: Old Butte-Silver Bow County Landfill/Clark Tailings

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Senior Technician

Encl.
cc. Gary Keeler, BSB Landfill Manager
Shawn Bisch, Pioneer Technical Services Inc.

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WASTE & UNDERGROUND TANK
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OLD SILVER BOW LANDFILL
SEPTEMBER 2010 GROUNDWATER MONITORING

The September 2010 round of sampling at the Old Silver Bow Landfill included sampling for the full Table 2 list of analytics in accordance with the Assessment Monitoring program. Table 1, attached, summarizes the analytical results. The discussion below compares these data to previous results and to current Maximum Contaminant Levels (MCLs) and Montana Human Health Standards (HHSs).

Well MBMG-2 (up gradient):

No semi-volatiles, volatile, chlorinated acids, or pesticides were detected in the well during this sampling event. Metals detected below the maximum background concentrations are; As (.0014 mg/L), Ba (0.140 mg/L), Cu (0.0011 mg/L), V (0.0072 mg/l), and Se (0.00054 mg/L). There were no metals detected above the maximum background concentrations during this sampling event. Nitrate/nitrite (9.90 mg/L), Chloride (57 mg/l), and Sulfate (148 mg/L) were detected at concentrations below the maximum background.
No MCL or HHS exceedences were observed in this well during this sampling event.

Well BSB-A1 (North):

No semi-volatile, volatile, chlorinated acids, or pesticides were detected in the well during this sampling event. In accordance with the modified assessment-monitoring program, a sample for metals analyses was not collected from this well.
There were no inorganic compounds detected at levels above maximum baseline or above maximum background in this well during this sampling event.
No MCL or HHS exceedences were observed in this well during this sampling event.

Well BSB-A5 (Northeast Well):

In accordance with the modified assessment-monitoring program, a sample for metals analyses was not collected from this well. No semi-volatiles, chlorinated acids, or pesticides were detected in the well during this sampling event. Two volatile organic compounds were detected in this well during this sampling event, Tetrachloroethene (Pace 1.10 J μg/L) and cis-1,2-Dichloroethene (Pace 1.8 μg/L), both exceed maximum background concentrations and cis-1,2-Dichloroethene exceeds maximum baseline of 1.7 μg/L.
Sulfate detected at 468 mg/L exceeds maximum background concentration.
Sulfate also exceeds the secondary USEPA MCL of 250 mg/L.

Well BSB-A6-R (Central Well):

Well BSB-A6-R is the replacement well for BSB-A6, removed during the construction of Timber Butte Youth Park. Six volatile organic compounds (VOC's) were detected in this well; three of the six were detected at levels below the quantification limit. The six volatile organic compounds were as follows:

- Benzene (0.56 J ug/L); exceeds maximum background.
- 1,4 – Dichlorobenzene (0.98ug/L); exceeds maximum background.
- Dichlorodifluoromethane (2.1 ug/L); exceeds maximum background.
- 1,1-DCA (1.7 ug/L); exceeds maximum background.
- Cis-1,2-DCE (4.8 ug/L); exceeds maximum background.
- Vinyl Chloride (2.4 ug/L). Exceeds maximum background.

Vinyl Chloride exceeds the MDEQ-7 HHS standard of 0.2 ug/L.
No chlorinated acids were detected.
One semi-volatile compound bis(2-Ethylhexyl)phthalate (Pace 5.33 J ug/L) and two pesticide compounds were detected Dicamba (Pace 0.073 J ug/L); 2,4,5-TP (Silvex) (Pace 0.14 J ug/L) above maximum background.
In accordance with the modified assessment-monitoring program, a sample for metals analyses was not collected from this well.
Sulfate (942 mg/L) exceeds maximum background concentrations. Sulfate exceeds the secondary USEPA MCL of 250 mg/L.

Well CLK-1 (Clark Tailings East Well):

In accordance with the modified assessment-monitoring program, no samples for organic analyses were collected from this well. Metals detected above maximum background but below maximum baseline are; arsenic (0.170 mg/L), cadmium (0.016 mg/L); colbalt (0.054 mg/L), iron (17.1 mg/L), nickel (0.042 mg/L) and zinc (71.20 mg/L). Arsenic, cadmium, iron and zinc exceed US EPA MCL or Montana HHS standards.
Sulfate was detected at a concentration of 1100 mg/L, which exceeds the maximum background and the secondary MCL for this compound.

Well CLK-2 (Clark Tailings North Well):

In accordance with the modified assessment-monitoring program, no samples for organic analyses were collected from this well. Metals detected above maximum background but below maximum baseline are; nickel (0.035 mg/L) and zinc (0.63 mg/L). Concentrations for both of these metals are well below MCLs, secondary MCLs, or Montana HHS concentrations for these metals.
Sulfate was detected at a concentration of 679 mg/L, which exceeds the maximum background and the secondary MCL for this compound.
Chloride was also detected during this sampling event at a concentration of 78 mg/L which exceeds both maximum background and maximum baseline.

Conclusion:

The September 2010 sampling event at the Old Butte-Silver Bow Landfill included sampling according to the modified assessment-monitoring program (see Table 2 for analytical data). The results for metals, inorganics, and organic contaminants obtained from this sampling event were comparable to previous results.

TABLE I: ANALYTICAL DATA FOR GROUNDWATER SAMPLES, OLD SILVER BOW COUNTY LANDFILL

DATE SAMPLED: September, 14 2010

SAMPLE NUMBER	BSB-GW-O1	BSB-GW-O2	BSB-GW-O3	BSB-GW-O4	BSB-GW-O5	BSB-GW-O6	BSB-GW-07	BSB-GW-08	BSB-GW-O9	GW PROTECTION STANDARDS	
WELL	MBMG-2	BSB-A1	BSB-A5	BSB-A6-R	CLK-1	CLK-2	BSB-A6R DUPE	CLK-2 DUPE	Field Blank Trip Blank	USEPA MCL*	MONTANA HHS
ANALYTE (units):											
DISSOLVED METALS (mg/L)											
Antimony	< 0.0005	NR	NR	NR	< 0.0005	< 0.0005	NR	< 0.0005	NS	0.006	0.0
Arsenic	0.0014	NR	NR	NR	0.120	0.0010	NR	0.0009	NS	0.05	0.
Barium	0.14	NR	NR	NR	0.024	0.018	NR	0.018	NS	2	
Beryllium	< 0.00020	NR	NR	NR	0.00043	< 0.0002	NR	< 0.0002	NS	0.004	0.0
Cadmium	< 0.00008	NR	NR	NR	0.016	0.00110	NR	0.00110	NS	0.005	0.0
Chromium	< 0.0005	NR	NR	NR	< 0.0005	< 0.0005	NR	0.0006	NS	0.1	0
Cobalt	< 0.0005	NR	NR	NR	0.054	< 0.0005	NR	< 0.0005	NS	- - -	
Copper	0.0011	NR	NR	NR	0.0017	0.0063	NR	0.0053	NS	1.3 (a)	1
Iron	< 0.05	NR	NR	NR	176.1	< 0.050	NR	< 0.050	NS	0.3(s)	0
Lead	< 0.00010	NR	NR	NR	0.0003	0.0005	NR	< 0.0001	NS	0.015 (a)	0.0
Mercury	< 0.0002	NR	NR	NR	< 0.0002	< 0.0002	NR	< 0.0002	NS	0.002	0.0
Nickel	< 0.0005	NR	NR	NR	0.0420	0.0350	NR	0.0350	NS	0.1	0
Selenium	0.0054	NR	NR	NR	< 0.0005	< 0.0005	NR	< 0.0005	NS	0.05	0.
Silver	< 0.00050	NR	NR	NR	< 0.0005	< 0.0005	NR	< 0.0005	NS	0.1	0
Thallium	< 0.00010	NR	NR	NR	< 0.0001	< 0.0001	NR	< 0.0001	NS	0.002	0.0
Tin	NR	NR	NR	NR	NR	NR	NR	NR	NS		
Vanadium	0.0072	NR	NR	NR	0.00056	0.0025	NR	0.0022	NS	- - -	
Zinc	0.0086	NR	NR	NR	71.2	0.630	NR	0.660	NS	5	
INORGANICS (mg/L)											
Chloride	57	17	32.0	58	38	78	NR	NR	NS	250	
COD	< 50.0	< 50.0	< 50.0	208	NR	NR	NR	NR	NS	- - -	
Conductivity (umhos/cm)	839	462	1160.0	2080	2010	1680	NR	NR	NS	- - -	
Cyanide	< 0.005	< 0.005	< 0.005	< 0.005	NR	NR	NR	NR	NS	- - -	0
Nitrate\Nitrite - N	9.9	0.47	4.3	0.12	NR	NR	NR	NR	NS	10	
pH	7.2	7.2	6.2	6.3	6.2	6.4	NR	NR	NS		
Sulfate	148	71	478.0	942	1100	679	NR	NR	NS	250	
Sulfide	NR	NR	NR	NR	NR	NR	NR	NR	NS		
EPA METHOD 8260 (ug/L)											
Acetone	< 10.0	< 10.0	< 10.0	< 10.0	NR	NR	< 20.0	NR	< 10.0	- - -	
Benzene	< 1.0	< 1.0	< 1.0	(Pace 0.56 J)< 1.0	NR	NR	(ELI 0.52 J)< 1.0	NR	< 1.0	5	
Carbon Disulfide	< 1.0	< 1.0	< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	- - -	
Chloroethane	< 1.0	< 1.0	< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	- - -	
Chloroform	< 1.0	< 1.0	< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	- - -	
Chlormethane	< 4.0	< 4.0	< 4.0	< 1.0	NR	NR	< 1.0	NR	< 4.0	- - -	
1,4-Dichlorobenzene	< 1.0	< 1.0	< 1.0	(Pace 0.98 J)< 1.0	NR	NR	1.0	NR	< 1.0	75	
Dichlorodiflouromethane	< 1.0	< 1.0	< 1.0	2.1	NR	NR	2.1	NR	< 1.0	- - -	10
1,1-Dichloroethane	< 1.0	< 1.0	< 1.0	1.7	NR	NR	1.8	NR	< 1.0	- - -	
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	5	
cis-1,2-Dichloroethene	< 1.0	< 1.0	1.8	4.8	NR	NR	3.6	NR	< 1.0	70	
trans-1,2-Dichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	100	1
1,2-Dichloropropane	< 1.0	< 1.0	< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	5	
4-Isopropyltoluene	< NR	NR	NR	NR	NR	NR	NR	NR	NR	- - -	
Methylene Chloride	< 4.0	< 4.0	< 4.0	(Pace 0.41 J)< 4.0	NR	NR	Pace 0.54 J)< 1.0	NR	< 4.0	5	
Naphthalene	NR	NR	NR	NR	NR	NR	NR	NR	< NR	- - -	1
Tetrachloroethene	< 1.0	< 1.0	1.1	< 1.0	NR	NR	< 1.0	NR	< 1.0	5	
Trichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	5	
1,2,4-Trimethylbenzene	NR	NR	NR	NR	NR	NR	NR	NR	NR	- - -	
Vinyl Chloride	< 0.4	< 0.4	< 0.4	2.4	NR	NR	2.2	NR	< 0.4	2	0
EPA METHOD 8270 (ug/L)											
bis(2-ethylhexyl)Phthalate	< 10	< 10	< 10	(Pace 5.33 J)< 10	NR	NR	NR	NR	NS	6	
EPA METHOD 8151 (ug/L)	< 0.2	< 0.2	< 0.2	< 0.2	NR	NR	NR	NR	NS		
Dicamba				(Pace 0.073J)< 0.095							
2,4,5-TP (Silvex)				(Pace 0.14J)< 0.19							
2,4-D											
EPA METHOD 8081 (ug/L)											
	NR	NR	NR	NR	NR	NR	NR	NR	NS		

* MCL definitions: a = action level, not an MCL; s = secondary MCL (aesthetics)
NA = Not enough sample available for analysis
NR = Analysis Not Requested
ND = Analyte Not Detected
J = Estimated Quantity. Anlyte present, but less than the practical quantitation limit (PQL).
NS= Sample Not Collected (Dry Well-BSB-A5)
SA = Sample Not Taken

Old Butte-Silver Bow County Landfill/Clark Tailings

PIONEER
TECHNICAL SERVICES, INC.

December 6, 2010

September 2010 Semi-Annual
Groundwater Monitoring Event
Non-Parametric Comparison of Wells
Table

Old Butte-Silver Bow County Landfill
GROUNDWATER FIELD CHEMISTRY RESULTS AND PURGE VOLUMES
September-10

Well I.D.	Sample #	Depth (ft)	Radius (ft)	S.W.L. (ft)	TOC Elevation (ft)	Groundwater Elevation (ft)	pH. (su)	E.h. (mV)	S.C. (uS/cm)	T (Celsius)	Sample Time	H2O Volume Req'd (gal)	H2O Volume Purged (gal)	Comments
MBMG-2	BSB-GW-01	23.25	0.17	12.15	5529.88	5517.73	6.37	-220.4	564	12.5	11:53	5.55	4.60	
BSB-A1	BSB-GW-02	57.00	0.17	35.98	5531.50	5495.52	6.66	-203.1	321	15.4	13:56	10.51	1.50	
BSB-A5	BSB-GW-03	45.60	0.17	42.39	5524.62	5482.23	5.75	-174.60	843	11.0	13:15	1.61	3.00	
BSB-A6-R	BSB-GW-04	59.75	0.17	53.03	5554.41	5501.38	5.90	-253.6	1529	14.2	10:30	3.36	0.60	
BSB-A6-R	BSB-GW-07	59.75	0.17	SA	5554.41	SA	SA	SA	SA	SA	SA	SA	SA	VOC Duplicate
CLK-1	BSB-GW-05	19.00	0.17	5.05	5478.73	5473.68	5.78	-285.9	1452	10.4	14:19	6.98	12.00	
CLK-2	BSB-GW-06	46.90	0.17	41.07	5511.17	5470.10	5.90	-259.0	1227	11.6	12:43	2.92	9.25	
CLK-2	BSB-GW-08	46.90	0.17	SA	5511.17	SA	SA	SA	SA	SA	SA	SA	SA	Raw, DM Duplicate
Blank	BSB-GW-09	NA	NA	NA	NA	NA	NA	NA	NA	NA	14:00	NA	NA	Field Blank

KEY:

NA	Measurement Not Taken
SA	Sample Not Taken

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring

WELL/STATION BSB-AS DATE 9/14/10 TIME 9:55

SAMPLERS BAL S WEATHER CONDITIONS P. Cloudy, 60's

PHOTO: Yes ____ No X ROLL# ____ NUMBER ____

PURGE DATA:

PURGE METHOD Dedicated Bailer

START PURGING 10:00

PURGE RATE ____ GPM

RATE CHANGE 1) Time ____ Rate ____

2) Time ____ Rate ____

SAMPLE TIME 13:15

WELL DEPTH 45.60 Feet

DEPTH TO WATER 42.39 Feet

COLUMN DEPTH 3.21 Feet

CASING DIAMETER 2 Inch

PUMP SET AT NA Feet

3 WELL VOLUMES 1.6 Gallons

TOTAL PURGE VOLUME 3 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
	1 Liter		HNO_3	Dissolved Metals-
BSB-GW-03	1 Liter		Raw	pH, SC, Cl⁻, SO4⁻²
BSB-GW-03	250ml ~~1 Liter~~		NaOH	CN⁻
BSB-GW-03	250ml ~~1 Liter~~		H2SO4	NO2/NO3, COD
BSB-GW-03	1 Liter-4		Raw	8270, 8151
BSB-GW-03	VOA'S		HCl	8260

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						
13:25	3	11.0	5.75	843	-174.6	5.60

FIELD REMARKS: Let Recover prior to sampling. Wasn't bailed dry.

Pioneer Technical Services

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring

WELL/STATION MBMG-2 DATE 9/14/10 TIME 10:35

SAMPLERS BH/F WEATHER CONDITIONS P. Cloudy, 60's, breeze

PHOTO: Yes ____ No ____ ROLL# ____ NUMBER ____

PURGE DATA:

PURGE METHOD 12volt Submersible pump

START PURGING 10:45

PURGE RATE 300 ~~GPM~~ ml/min.

RATE CHANGE 1) Time ____ Rate ____

2) Time ____ Rate ____

SAMPLE TIME 1153

WELL DEPTH 23.25 Feet

DEPTH TO WATER 12.15 Feet TPVC

COLUMN DEPTH 11.1 Feet

CASING DIAMETER 2 Inch

PUMP SET AT 18 Feet

3 WELL VOLUMES 5.55 Gallons

TOTAL PURGE VOLUME 4.60 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-01	1 Liter	✓	HNO_3	Dissolved Metals-
BSB-GW-01	1 Liter		Raw	pH, SC, Cl, SO_4^{-2}
BSB-GW-01	250 ~~1 Liter~~		H_2SO_4	NO_2/NO_3, COD
BSB-GW-01	250 ~~1 Liter~~		NaOH	CN^-
BSB-GW-01	1 Liter		Raw	8270, 8151
BSB-GW-01	40ml		HCl	8260

FIELD PARAMATERS:

TIME	Gal Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
1102	1	12.1	6.64	568	-167.0	—
1105	1.25	11.8	6.61	565	-177.4	4.50
1108	1.50	11.6	6.58	566	-180.3	4.27
1111	1.75	11.6	6.57	566	-191.8	4.12
1114	2.00	11.7	6.55	564	-193.6	4.05
1117	2.20	11.8	6.52	560	-204.5	3.95
1120	2.40	12.1	6.47	563	-206.2	3.77
1123	2.60	12.1	6.45	562	-211.3	3.74
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						
1153	4.60	12.5	6.37	564	-220.4	3.38

FIELD REMARKS: 12.24'-Initial drawdown, Final -12.24'

started dark stayed clear

Pioneer Technical Services

2.0-
1.75
3 5

2) .7
3.30

Time	Vol	temp	pH	SC	eH	DO
1126	~~2.80~~ 5	12.2	6.45	562	-215.5	~~-215.4~~ 3.66
1129	2.85	12.2	6.44	563	-217.6	359
1132	~~.25~~ 3.00	12.3	6.37	563	-217.6	3.62
1135	3.30	12.3	6.34	566	-219.1	3.59
1138	3.50	12.4	6.34	564	-220.1	3.53
1141	3.70	12.3	6.33	565	-220.2	3.50
1144	3.95	12.1	6.34	567	-219.6	3.48
1147	4.15	12.3	6.36	565	-221.1	3.44
1150	4.35	12.4	6.36	566	-220.9	3.41
1153	4.60	12.5	6.37	564	-220.4	3.38

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring

WELL/STATION BSB-A1 DATE 9/14/10 TIME 12:32

SAMPLERS BH/E WEATHER CONDITIONS P.Cloudy, 60's, breezy

PHOTO: Yes ____ No X ROLL# ____ NUMBER ____

PURGE DATA:

WELL DEPTH 57.00 Feet

DEPTH TO WATER 35.98 Feet

COLUMN DEPTH 21.02 Feet

CASING DIAMETER 2 Inch

PUMP SET AT 47 Feet

3 WELL VOLUMES 10.51 Gallons

TOTAL PURGE VOLUME 1.5 Gallons

PURGE METHOD 12volt Submersible Pump

START PURGING 12:45

PURGE RATE 90 ~~GPM~~ ml/min

RATE CHANGE 1) Time ____ Rate ____

2) Time ____ Rate ____

SAMPLE TIME 1356

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-02	1 Liter		HNO_3	Dissolved Metals- Not collected.
BSB-GW-02	1 Liter		Raw	pA, SC, Cl^-, SO_4^{-2}
BSB-GW-02	250m ~~1 Liter~~		NaOH	CN^-
BSB-GW-02	254 ~~1 Liter~~		H_2SO_4	NO2/NO3, COD
BSB-GW-02	1 Liter-4		Raw	8270, 8151
BSB-GW-02	VOA's		HCl	8260

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
		14.8	6.65	323	-181.7	3.67
		15.0	6.65	322	-197.9	3.57
13:39		15.1	6.66	322	-200.4	3.44
13:41	.95	15.3	6.67	322	-200.9	3.39
13:45	1.00	15.5	6.66	322	-201.3	3.29
13:47		15.4	6.66	322	-201.4	3.19
1349		15.3	6.66	321	-202.2	3.08
1351		15.4	6.66	321	-203.1	3.05
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						

FIELD REMARKS: Initial drawdown-36.68'

Time	Gal	temp	pH	SC	eH	DO
1353		15.6	6.67	322	-201.3	3.0
1356	1.50	15.8	6.67	322	-188.8	3.0

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION BSB-A6R DATE 9/15/10 TIME 9:35
SAMPLERS BH/F WEATHER CONDITIONS Sunny, Calm, 50's
PHOTO: Yes ____ No X ROLL# ____ NUMBER ____

PURGE DATA:

PURGE METHOD 12volt Submersible pump
START PURGING 945
PURGE RATE 50 ~~GPM~~ ml/min
RATE CHANGE 1) Time ____ Rate ____
2) Time ____ Rate ____
SAMPLE TIME 10:30

WELL DEPTH 59.75 Feet
DEPTH TO WATER 53.03 Feet
COLUMN DEPTH 6.75 Feet
CASING DIAMETER 2 Inch
PUMP SET AT 54 Feet
3 WELL VOLUMES 3.36 Gallons
TOTAL PURGE VOLUME 0.6 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-04	1 Liter		HNO_3	Dissolved Metals- Not collected
BSB-GW-04	1 Liter		Raw	pH, SC, Cl⁻, SO4
BSB-GW-04	250ml ~~1 Liter~~		NaOH	CN⁻
BSB-GW-04	250ml ~~1 Liter~~		H2SO4	NO2/NO3, COD
BSB-GW-04	1 Liter-4		Raw	8270, 8151

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
10:10	.25	13.6	5.95	1535	-256.8	2.21
10:14		13.7	5.94	1557	-255.3	2.23
10:18		14.2	5.89	1524	-252.5	2.22
10:22		14.1	5.90	1532	-253.1	2.23
10:26		14.1	5.90	1529	-255.3	2.21
10:30		14.2	5.90	1529	-253.6	2.22
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						
10:30		14.2	5.90	1529	-253.6	2.22

FIELD REMARKS: Initial Drawdown- 53.37' Final- 53.52'

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION CLK-1 DATE 9/15/10 TIME 13:50
SAMPLERS BSW/S WEATHER CONDITIONS P. Cloudy, 60's, breeze
PHOTO: Yes ____ No P ROLL# ____ NUMBER ____

PURGE DATA:

WELL DEPTH 19.00 Feet
DEPTH TO WATER 5.05 Feet
COLUMN DEPTH 13.95 Feet
CASING DIAMETER 2 Inch
PUMP SET AT 17 Feet
3 WELL VOLUMES 7 Gallons
TOTAL PURGE VOLUME 12.0 Gallons

PURGE METHOD 12 volt Submers
START PURGING 1400
PURGE RATE 0.5 GPM
RATE CHANGE 1) Time ____ Rate ____
2) Time ____ Rate ____
SAMPLE TIME J ~~1420~~ 1419

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-05	1 Liter	✓	HNO_3	Dissolved Metals-
BSB-GW-05	1 Liter		Raw	pH, SC, Cl-, SO4-2
	1 Liter			
	1 Liter			
	1 Liter			

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
1408	3	13.2	6.07	1271		2.96
1409	~~4~~ 5	12.5	5.93	1282	-242.5	2.70
1410	4	12.0	5.87	1325	-236.7	2.30
1411	5	11.5	5.87	1331	-242.1	~~4.2~~
1412		11.5	5.88	1383	-261.9	~~2.2~~ 2.00
1413		10.9	5.85	1429	-271.6	~~-271.6~~ J 1.12
1414		10.5	5.84	1436	-270.1	0.76
1415		10.4	5.80	1439	-281.0	0.61
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						
1419	12	10.4	5.78	1452	~~-292.5~~ -285.90	0.31

FIELD REMARKS: ____

Pioneer Technical Services

	Gal	Temp	pH	SC	eH	DO
1416.	9	10.4	5.79	1441	-286.6	0.52
1417-		10.4	5.79	1443	-283.8	0.4
1418	11	10.4	5.79	1445	-283.90	0.3
1419	11.5	10.4	5.79	1451	-285.90	0.3
1420	120	10.4	5.78	1452	-292.8	0.28

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION CLK-2 DATE 9/15/10 TIME 12:30
SAMPLERS BA|S WEATHER CONDITIONS p.Cloudy, 60'S, Calm
PHOTO: Yes ____ No ____ ROLL# ____ NUMBER ____

PURGE DATA:

PURGE METHOD 12volt Submersible pump
START PURGING 12:45
PURGE RATE 0.25 GPM
RATE CHANGE 1) Time ____ Rate ____
2) Time ____ Rate ____
SAMPLE TIME 13:21

WELL DEPTH 46.90 Feet
DEPTH TO WATER 41.07 Feet
COLUMN DEPTH 5.83 Feet
CASING DIAMETER 2 Inch
PUMP SET AT 44 Feet
3 WELL VOLUMES ~~5.83~~ Gallons 3
TOTAL PURGE VOLUME 9.25 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-06	1 Liter	✓	HNO_3	Dissolved Metals-
BSB-GW-06	1 Liter		Raw	
	1 Liter			
	1 Liter			
	1 Liter			

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
1249	2.75	10.2	5.84	1225	-254.4	1.61
1251	3.50	10.3	5.85	1227	-270.1	1.46
1253	4.00	10.5	5.86	1226	-275.9	1.13
1304	5.00	11.9	5.93	1211	-230.0	3.54
1305	5.25	11.8	5.88	1214	-224.2	4.14
1306	5.50	11.6	5.89	1216	-224.1	3.90
1307	5.75	11.5	5.89	1218	-225.0	3.78
1308	6.00	11.5	5.91	1215	-233.6	3.68
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						
1321	9.25	11.6	5.90	1227	-259.0	1.50

pump issues

FIELD REMARKS: ____

Pioneer Technical Services

		Temp	pH	SC	CH	DO
1309	6.25	11.4	5.91	1218	-234.2	3.42
1310	6.50	11.3	5.91	1219	-233.1	3.17
1311	6.75	11.4	5.96	1222	-240.8	2.96
1312	7.00	11.4	5.91	1222	-246.2	2.54
1313	7.25	11.4	5.91	1221	-240.7	2.15
1314	7.50	11.4	5.92	1223	-247.9	2.02
1315	7.75	11.4	5.89	1225	-258.3	1.76
1316	8.00	11.5	5.88	1223	-259.3	1.68
1317	8.25	11.5	5.88	1224	-259.3	1.6
1318	8.50	11.5	5.88	1225	-261.7	1.50
1319	8.75	11.6	5.89	1226	-263.3	1.54
1320	9.00	11.6	5.89	1227	-264.6	1.53
1321	9.25	11.6	5.90	1227	-259.6	1.5

6/15/10 New Landfill.

13:30 Thunderstorm in area
wait to pass.

13:51 Resume purging at
BSB-W1.

1400 Collect CL2-GW-01

1-1L- Raw, pH, SC, Cl^-, SO_4^{-2}
1-250ml - Filt/HNO_3, dissolved metals
1-250ml- NaOH, Cyanide
1-250ml- H_2SO_4, NO_2/NO_3, COD
3-40ml VOA, HCl, 8260

Purged 111 gallons total from
BSB-W1 on 6/14/10 & 6/15/10

14:26 BSB-W5, DTW - 155.36'

9/14/10

955. Arrive @ BSB-A5
DTW - 42.39; TD - 45.6
Water Column - 3.21 Casing - 2
3 Well Vols - 1.60

1000 - Begin purging using dedecated
bailer - Purged 3 gallons -
will let sit for a few hours to
recover - didnt bail dry just bailed
lower

Measured methane prior to
DTW -

13:05 Return to BSB-A5

13:15 collect BSB-GW-03

1-1L; HDPE - Raw - pH, SC, Cl^-, SO_4^{-2}
1-250ml - HDPE - NaOH - CN^-
1-250ml, HDPE - H_2SO_4 - NO_2/NO_3, COD
4-1L, Amberglass - Raw - 8270, 8151
3-40ml VOA vials - HCl - 8260

9/14/10 Old Landfill

10:35 Arrive at MBMW-2
DTW - 12.15', TD - 23.25'
column - 11.1', 2"-dia.
3 well vol. - 5.55 gal.

10:45 Begin purging w/ 12 volt pump set at 18'. Purging at 300 ml/min.
Initial drawdown - 12.24'
Final drawdown - 12.24'

11:53 collect BSB-GW-01

1-1L-HDPE, Raw - pH, SC, Cl^-, SO_4^{-2}
1-250ml-Filt/HNO_3, HDPE - Diss. Metals
1-250ml - H_2SO_4, HDPE - NO_2/NO_3, COD
1-250ml - NaOH, HDPE - CN^-
4-1L Amber-glass, Raw - 8270, 8151
4-40ml VOA'S - HCl - 8260

Purged 4.60 total gallons prior to sampling.

Deconned pump.

12:32 Arrive at BSB-A1
DTW - 35.98', TD - 57.00
column - 21.02, 2"-dia.
3 well Vol. - 10.51

12:45 Begin purging w/ 12v pump set at 47', purging at 100 ml/min.
Initial drawdown - 36.68'
Final drawdown - 36.72'

13:56 Collect BSB-GW-02

1-1L, HDPE - Raw - pH, SC, Cl^-, SO_4^{-2}
1-250ml, HDPE - NaOH - CN^-
1-250ml, HDPE - H_2SO_4 - NO_2/NO_3, COD
4-1L, Amberglass - Raw - 8270, 8151
3-40ml VOA vials - HCl - 8260

Purged 1.5 gallons prior to sample collection

Deconned pump.

9/15/10 Old Landfill

9:35 Arrive on site @ BSB-A6P
DTW - 53.03 TD - 59.75
Column - 6.72 2"-dia.
3 Well Vol. - 3.36 gallons

9:45 Begin purging w/
12 volt Submersible pump set
at approx 54', purging at
50 ml/min.
Initial drawdown - 53.37'
Final drawdown - 53.28'

10:30 collect BSB-GW-04

1-1L, HDPE - Raw - pH, SC, Cl^-, SO_4^{-2}
1-250ml, HDPE - NaOH - CN^-
1-250ml, HDPE - H_2SO_4 - NO_2/NO_3, COD
4-1L, Amber glass - Raw - 8270, 8151
3-40ml, VOA vials - HCl - 8260

Finished filling containers
at 12:00

Deconned pump.

12:30 Arrive at CLK-2
DTW - 41.07, TD - 46.90
Column - 5.83, 2"-dia.
3 Well Vol. - 3 gallons

12:43 Begin purging w/
12 volt Submersible pump
set at 45', Purging at
0.25 gpm.
Purged 9.25 total gallons
prior to Sampling.

13:21 collect BSB-GW-06

1-1L, HDPE, Raw - pH, SC, Cl^-, SO_4^{-2}
1-250ml, HDPE, Filt/HNO_3 - diss. Metals

Decon pump dispose of
purge water.

13:50 Arrive at CLK-1
DTW - 5.05 TD - 19.00
Column - 13.95 2"-dia.
3 Well Vol. - 7 gallons

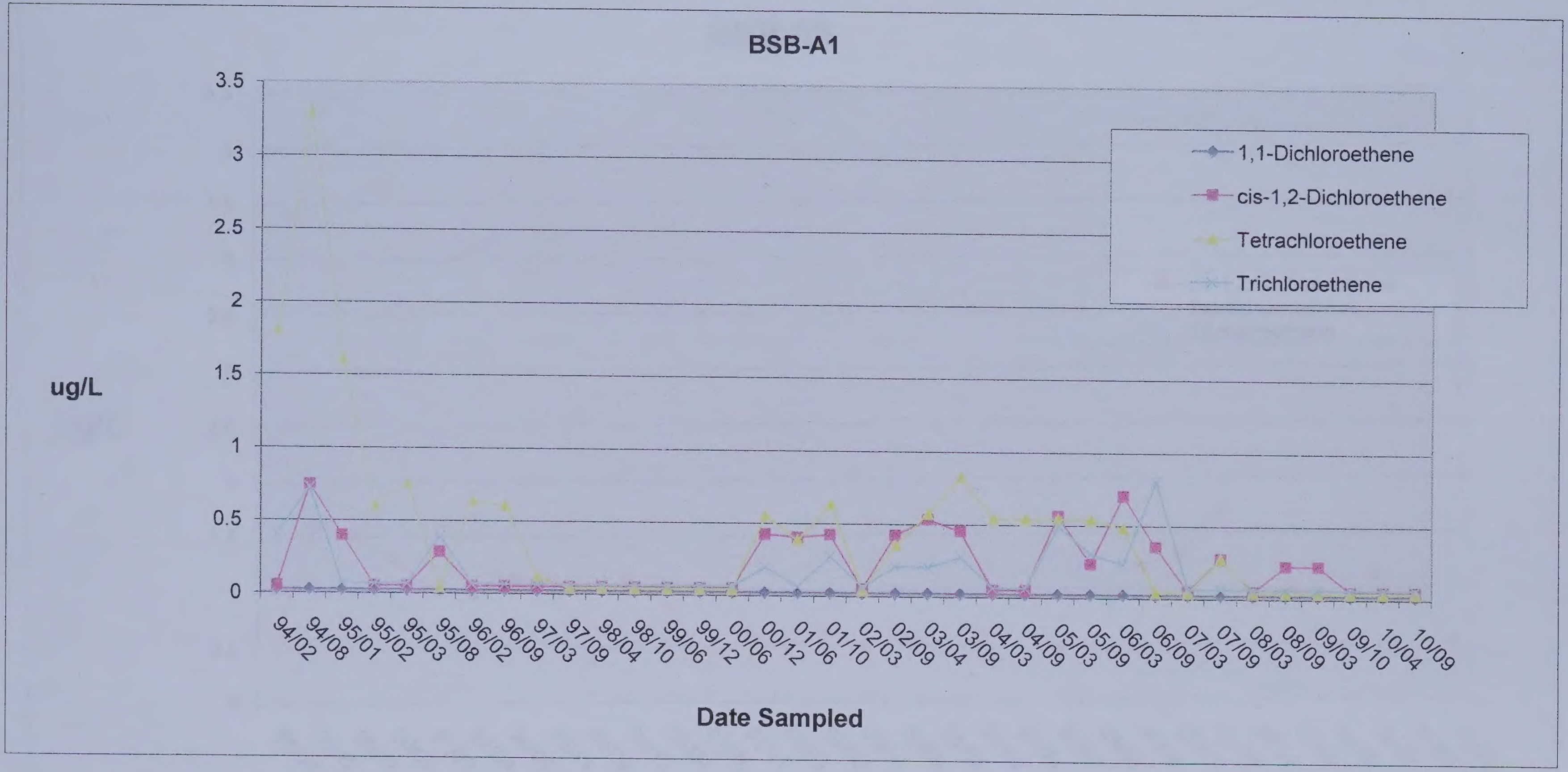
9/15/10 CLK-1 (cont.)

14:00 Begin purging w/ 12 volt Submersible pump set at 17', purging at 0.5 gpm. Purged total gallons prior to sample collection

1419 collect BSB-GW-05

1-1L, HDPE, Raw - pH, SC, Cl^-, SO_4^{-2}
1-250ml, HDPE, Filt/HNO_3 - Diss. Metals

Decon pump & dispose of collected purge water.


BSB-A1
ug/L
3.5
3
2.5
2
1.5
1
0.5
0
94/02
94/08
95/01
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95/03
95/08
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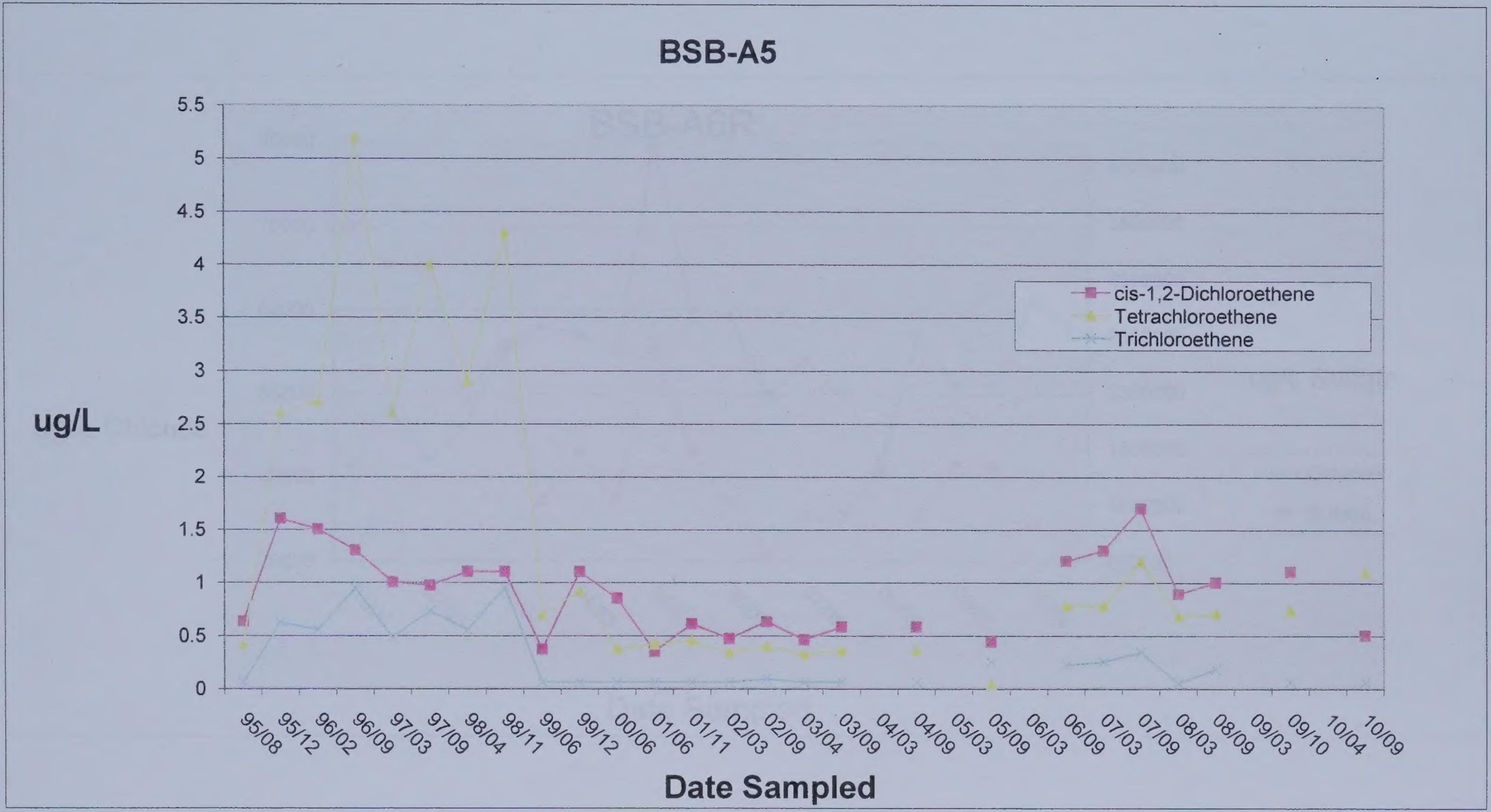
10/09
Date Sampled
1,1-Dichloroethene
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene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ug/L
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
95/08
95/12
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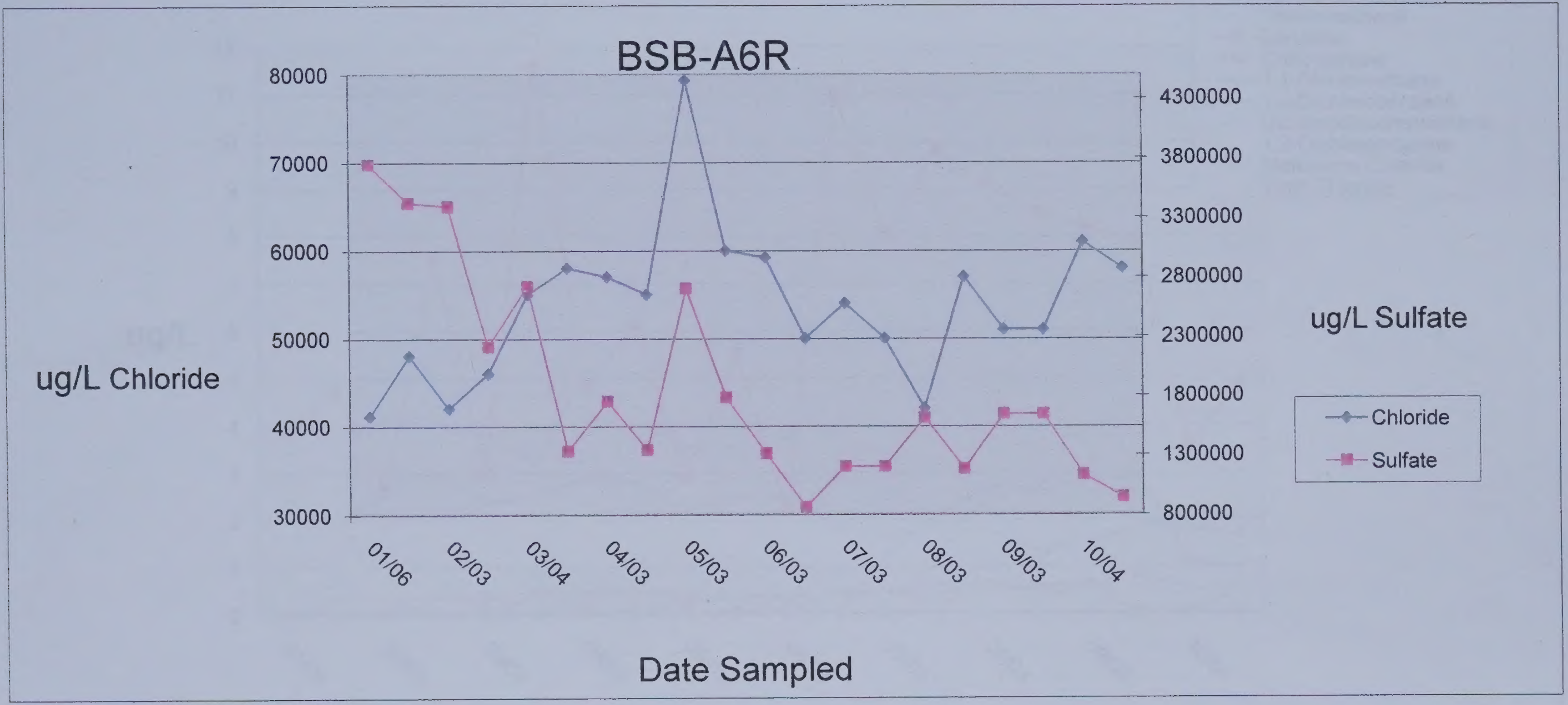
10/09
Date Sampled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ug/L Chloride
80000
70000
60000
50000
40000
30000
ug/L Sulfate
4300000
3800000
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2800000
2300000
1800000
1300000
800000
01/06
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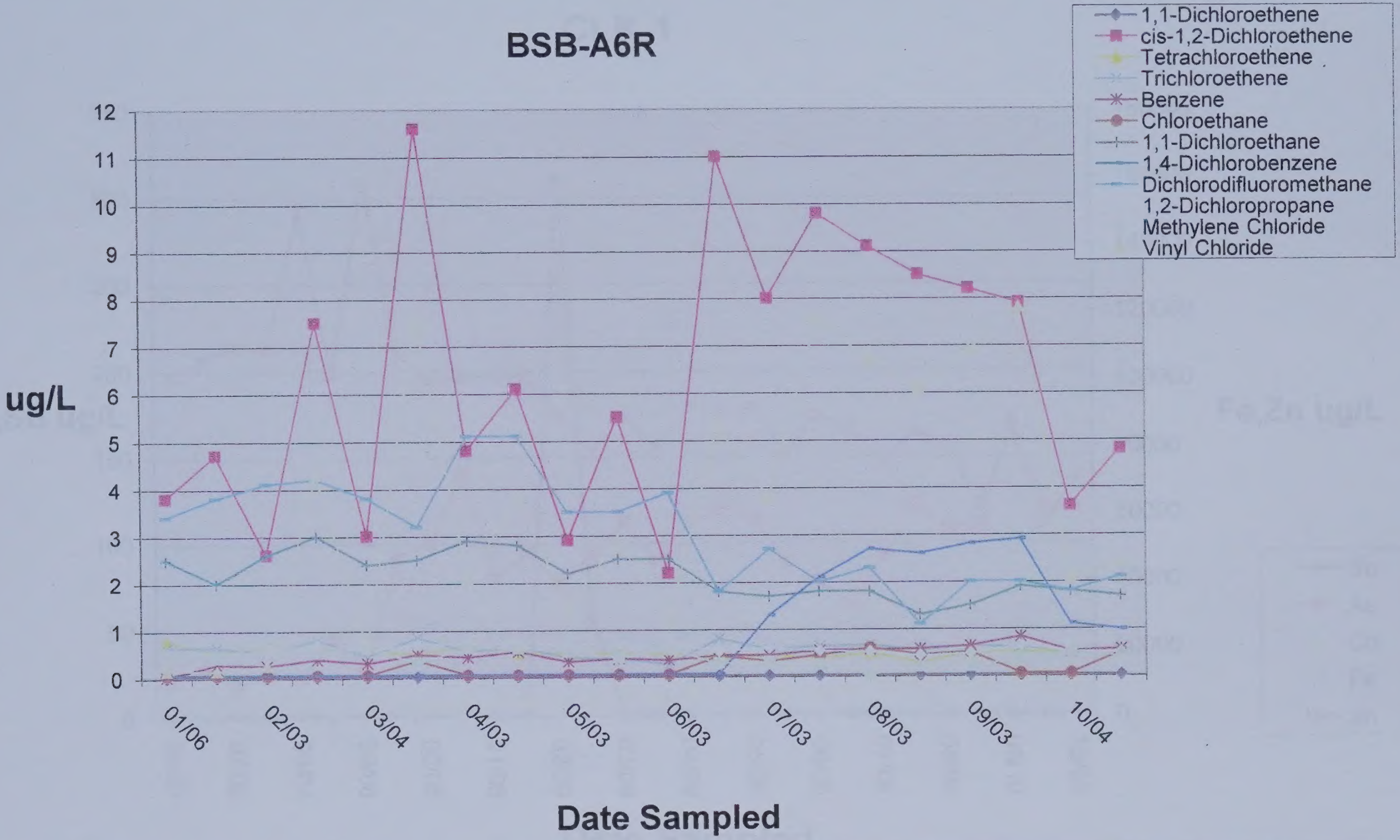
08/03
09/03
10/04
Date Sampled
Chloride
Sulfate

BSB-A6R
ug/L
12
11
10
9
8
7
6
5
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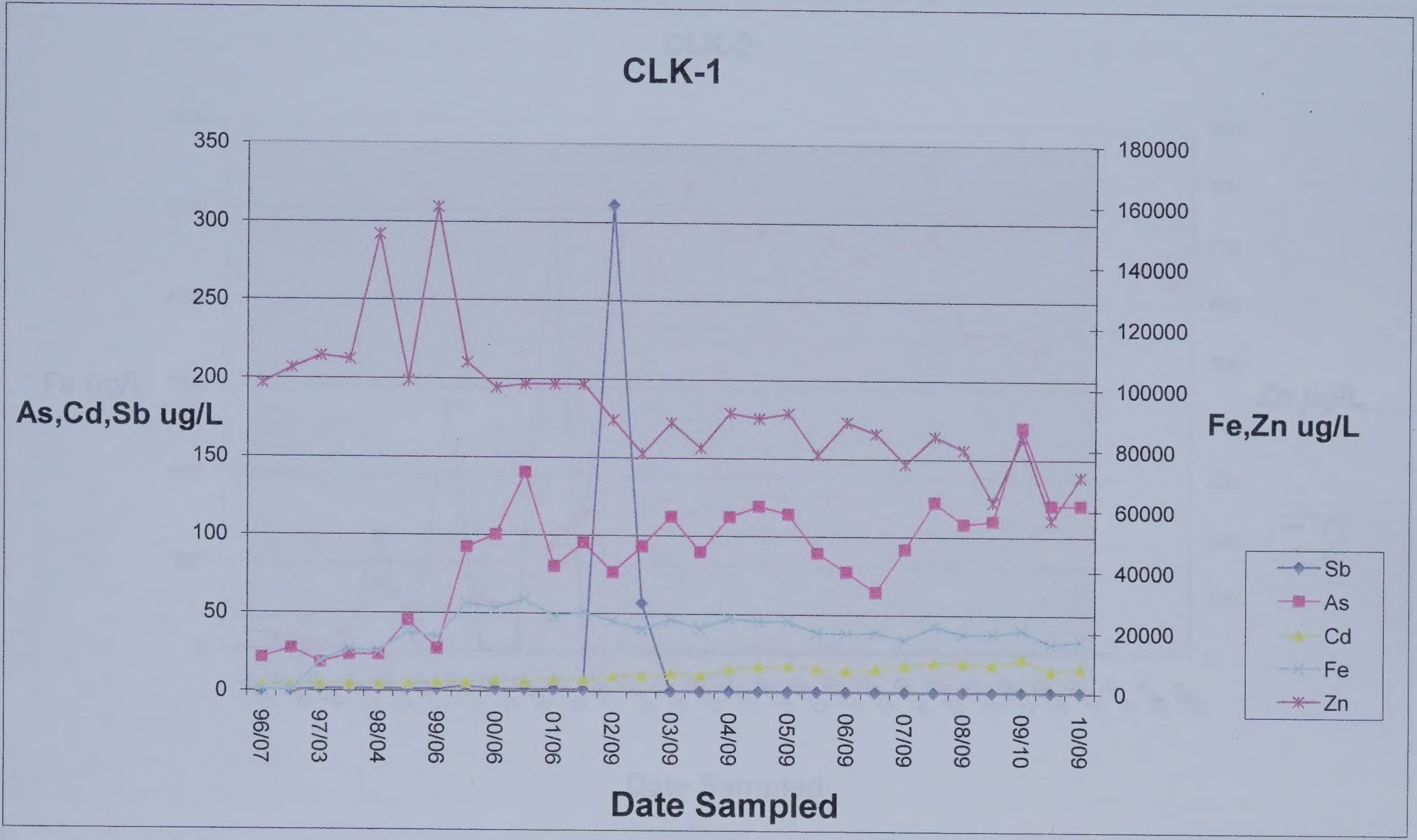
05/03
06/03
07/03
08/03
09/03
10/04
Date Sampled
1,1-Dichloroethene
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
Benzene
Chloroethane
1,1-Dichloroethane
1,4-Dichlorobenzene
Dichlorodifluoromethane
1,2-Dichloropropane
Methylene Chloride
Vinyl Chloride


CLK-1
As,Cd,Sb ug/L
350
300
250
200
150
100
50
0
Fe,Zn ug/L
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
96/07
97/03
98/04
99/06
00/06
01/06
02/09
03/09
04/09
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06/09
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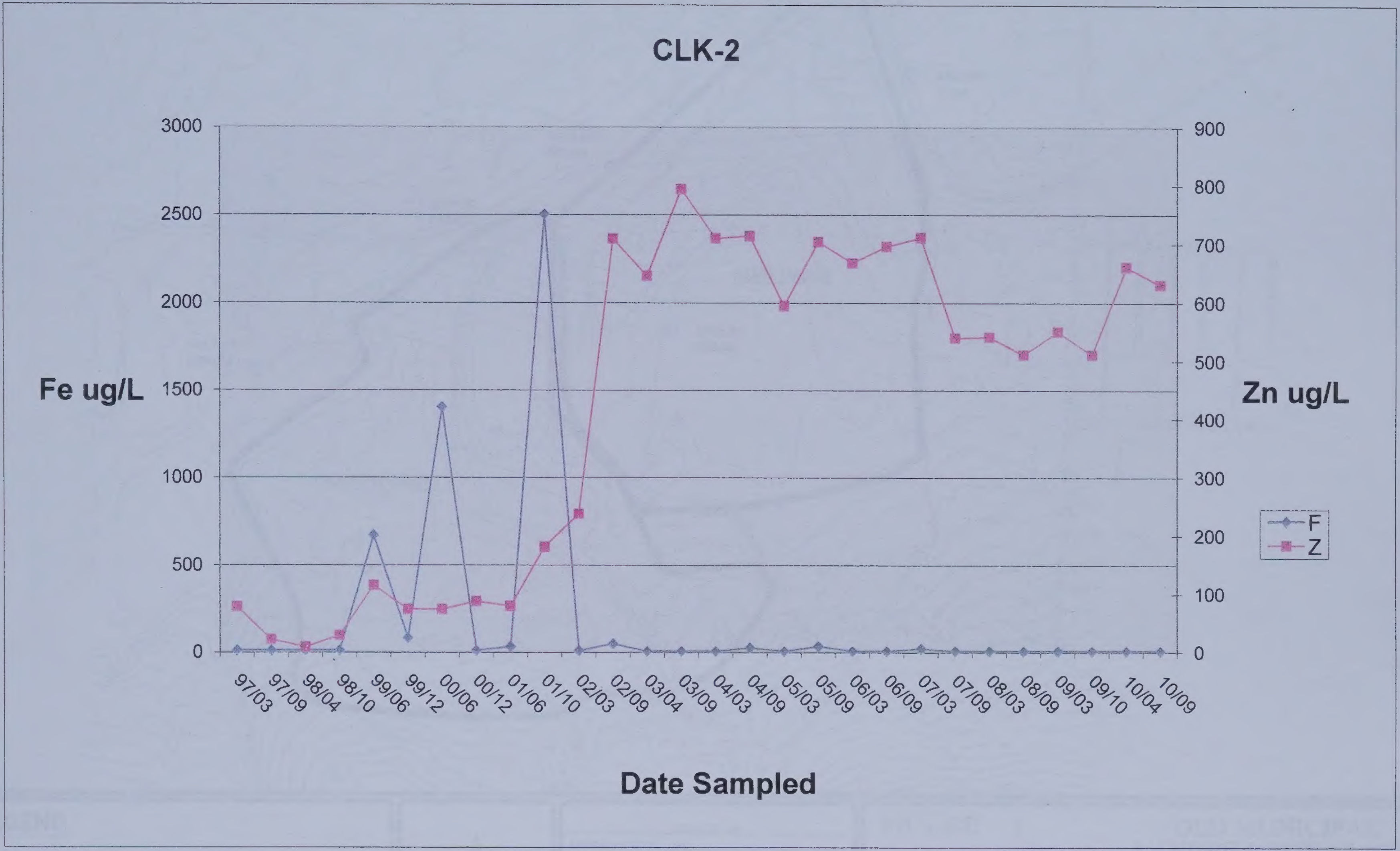
08/09
09/10
10/09
Date Sampled
Sb
As
Cd
Fe
Zn


CLK-2
Fe ug/L
3000
2500
2000
1500
1000
500
0
Zn ug/L
900
800
700
600
500
400
300
200
100
0
F
Z
97/03
97/09
98/04
98/10
99/06
99/12
00/06
00/12
01/06
01/10
02/03
02/09
03/04
03/09
04/03
04/09
05/03
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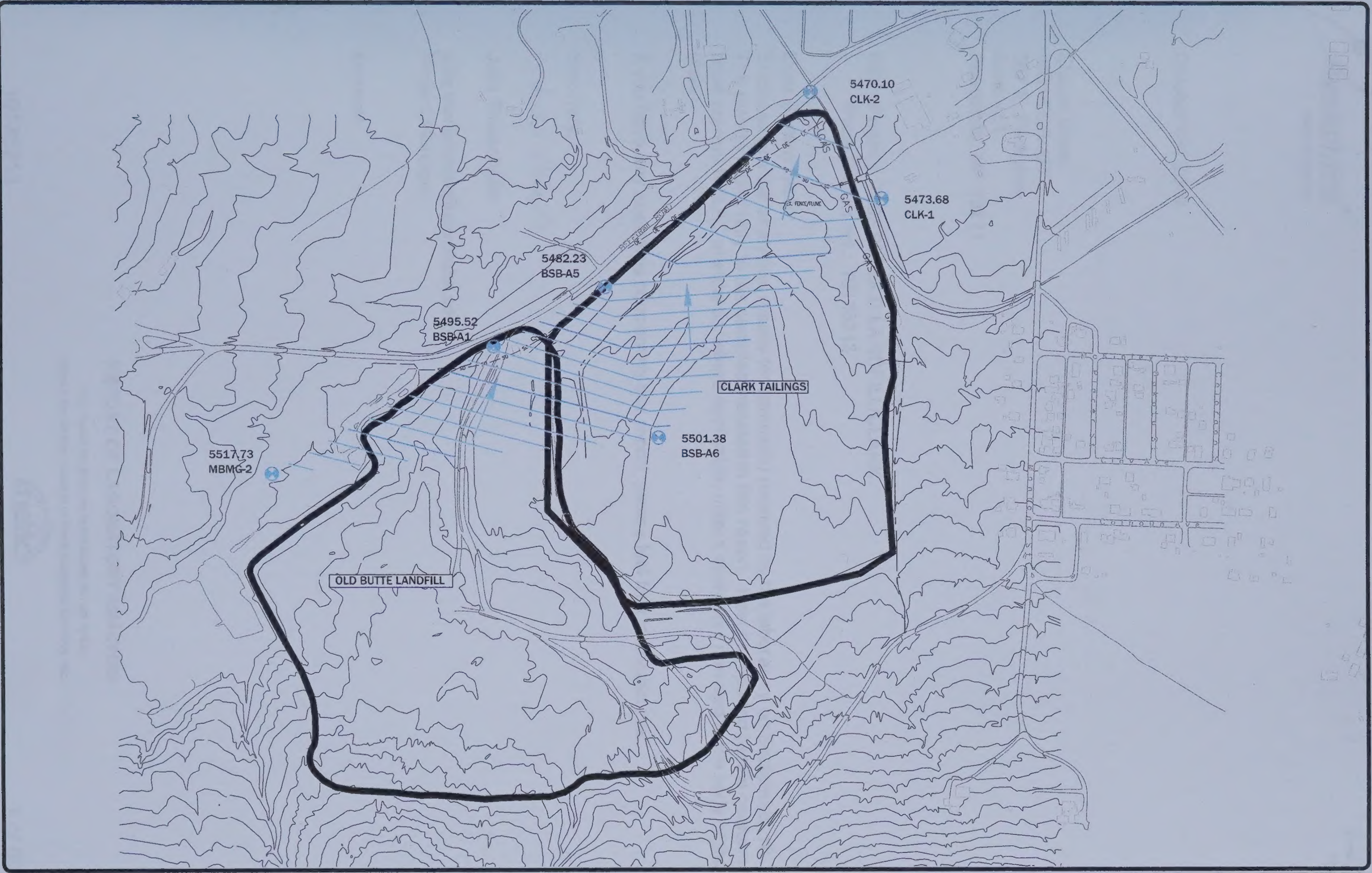
09/10
10/04
10/09
Date Sampled


5470.10
CLK-2
5473.68
CLK-1
EX. FENCE/FLUME
GAS
GAS
GAS
5482.23
BSB-A5
5495.52
BSB-A1
CLARK TAILINGS
5501.38
BSB-A6
5517.73
MBMG-2
OLD BUTTE LANDFILL

LEGEND

CLK-1 ● MONITORING WELL
—— CONTOUR
CONTOUR INTERVAL= 10'

N

DISPLAYED AS:	
COORD SYS/ZONE:	NA
DATUM:	NA
UNITS:	FEET
SOURCE:	PIONEER

SCALE IN FEET
0 300 600

FIGURE 1

PIONEER
TECHNICAL SERVICES, INC.
63-1/2 WEST BROADWAY
BUTTE, MONTANA 59701
(406) 782-5177

OLD MUNICIPAL LANDFILL SITE/CLARK TAILINGS FACILITY SEPTEMBER 2010

DATE: 12/1/10

12/1/2010 3:10:27 PM \\SRVW2K\CLIENTDATA1$\BUTTE-SILVER BOW\OLD LANDFILL\2010\DRAWINGS\SAMPLING 2010\OLDLNDFL-FG-PLN-002-10.DWG

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

October 04, 2010

Shawn Bisch
PIONEER-MT
307 E. Park Ave
Suite 421
Anaconda, MT 59711

RE: Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Dear Shawn Bisch:

Enclosed are the analytical results for sample(s) received by the laboratory on September 16, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julie Thieschafer

julie.thieschafer@pacelabs.com
Project Manager

Enclosures

CERTIFICATIONS

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Idaho Certification #: MN00064
Illinois Certification #: 200011
Iowa Certification #: 368
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT CERT0092
Nebraska Certification #: Pace
Nevada Certification #: MN_00064
New Jersey Certification #: MN-002
New Mexico Certification #: Pace
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
North Dakota Certification #: R-036A
Ohio VAP Certification #: CL101
Oklahoma Certification #: D9921
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Washington Certification #: C754
Wisconsin Certification #: 999407970

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Arizona Certification #: AZ0735
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH 0216
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: LA090012
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL1264
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Montana Certification #: Cert 0074
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New Jersey Certification #: FL765
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pennsylvania Certification #: 68-547
Puerto Rico Certification #: FL01264
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
Virginia Certification #: 00432
Wyoming Certification: FL NELAC Reciprocity

SAMPLE SUMMARY

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10138213001	**BSB-GW-01**	Water	09/14/10 11:53	09/16/10 09:57
10138213002	**BSB-GW-02**	Water	09/14/10 13:56	09/16/10 09:57
10138213003	**BSB-GW-03**	Water	09/14/10 13:15	09/16/10 09:57
10138213004	**BSB-GW-04**	Water	09/15/10 10:30	09/16/10 09:57
10138213005	**TRIP BLANK**	Water	09/14/10 00:00	09/16/10 09:57

SAMPLE ANALYTE COUNT

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10138213001	**BSB-GW-01**	EPA 8151	JLY	10	PASI-O
		EPA 200.8	RJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		EPA 8260	DJT	55	PASI-M
		EPA 120.1	MWD	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
		EPA 353.2	ACH	1	PASI-M
		EPA 410.4	MWD	1	PASI-M
		ASTM D516-02	KEO	1	PASI-M
		SM 4500-Cl E	KEO	1	PASI-M
		SM 4500-CN-E	ACH	1	PASI-M
10138213002	**BSB-GW-02**	EPA 8151	JLY	10	PASI-O
		EPA 8260	DJT	55	PASI-M
		EPA 120.1	MWD	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
		EPA 353.2	ACH	1	PASI-M
		EPA 410.4	MWD	1	PASI-M
		ASTM D516-02	KEO	1	PASI-M
		SM 4500-Cl E	KEO	1	PASI-M
		SM 4500-CN-E	ACH	1	PASI-M
10138213003	**BSB-GW-03**	EPA 8151	JLY	10	PASI-O
		EPA 8260	DJT	55	PASI-M
		EPA 120.1	MWD	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
		EPA 353.2	ACH	1	PASI-M
		EPA 410.4	MWD	1	PASI-M
		ASTM D516-02	KEO	1	PASI-M
		SM 4500-Cl E	KEO	1	PASI-M
		SM 4500-CN-E	ACH	1	PASI-M
10138213004	**BSB-GW-04**	EPA 8151	JLY	10	PASI-O
		EPA 8260	DJT	55	PASI-M
		EPA 120.1	MWD	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
		EPA 353.2	ACH	1	PASI-M
		EPA 410.4	MWD	1	PASI-M
		ASTM D516-02	KEO	1	PASI-M
		SM 4500-Cl E	KEO	1	PASI-M

SAMPLE ANALYTE COUNT

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 4500-CN-E	ACH	1	PASI-M
10138213005	**TRIP BLANK**	EPA 8260	DJT	55	PASI-M

PROJECT NARRATIVE

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Method: **EPA 8151**
Description: 8151 Chlorinated Herbicides
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
4 samples were analyzed for EPA 8151. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Method: **EPA 200.8**
Description: 200.8 MET ICPMS, Dissolved
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
1 sample was analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

B: Analyte was detected in the associated method blank.
- BSB-GW-01 (Lab ID: 10138213001)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/22369

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10138195005,10138233002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 854619)
  - Silver, Dissolved
- MSD (Lab ID: 854620)
  - Silver, Dissolved

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project:	7003 000 OLD LANDFILL/CLARK
Pace Project No.:	10138213

Method: **EPA 245.1**
Description: 245.1 Mercury, Dissolved
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
1 sample was analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

B: Analyte was detected in the associated method blank.
- BSB-GW-01 (Lab ID: 10138213001)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Method: **EPA 8260**
Description: 8260 MSV
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
5 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/15354

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 855295)
  - Acetonitrile

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: MSV/15354

Z3: Methylene chloride is a common laboratory contaminant. Results for this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

- BSB-GW-04 (Lab ID: 10138213004)
  - Methylene Chloride

PROJECT NARRATIVE

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Method: **EPA 120.1**
Description: 120.1 Specific Conductance
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
4 samples were analyzed for EPA 120.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
4 samples were analyzed for SM 4500-H+B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated more than 15 minutes after sample collection.
- BSB-GW-01 (Lab ID: 10138213001)
- BSB-GW-02 (Lab ID: 10138213002)
- BSB-GW-03 (Lab ID: 10138213003)
- BSB-GW-04 (Lab ID: 10138213004)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Method: **EPA 353.2**
Description: 353.2 Nitrate + Nitrite pres.
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
4 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Method: EPA 410.4
Description: 410.4 COD
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
4 samples were analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/9661

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10138006005,10138230001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 859340)
  - Chemical Oxygen Demand
- MSD (Lab ID: 859341)
  - Chemical Oxygen Demand

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Method: **ASTM D516-02**
Description: ASTM D516-90 Sulfate Water
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
4 samples were analyzed for ASTM D516-02. All samples were received in acceptable condition with any exceptions noted below.

B: Analyte was detected in the associated method blank.

- BSB-GW-01 (Lab ID: 10138213001)
- BSB-GW-02 (Lab ID: 10138213002)
- BSB-GW-03 (Lab ID: 10138213003)
- BSB-GW-04 (Lab ID: 10138213004)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/9621

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10138213001,10138294001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 856126)
  - Sulfate
- MSD (Lab ID: 856127)
  - Sulfate

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 856128)
  - Sulfate
- MSD (Lab ID: 856129)
  - Sulfate

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project:	7003 000 OLD LANDFILL/CLARK
Pace Project No.:	10138213

Method:	**SM 4500-Cl E**
Description:	SM4500Cl-E Chloride
Client:	BPAR-PIONEER-MT
Date:	October 04, 2010

General Information:
4 samples were analyzed for SM 4500-Cl E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Method: **SM 4500-CN-E**
Description: SM4500CN-E Cyanide
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
4 samples were analyzed for SM 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/9616

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10137735001,10138213002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 854642)
  - Cyanide
- MS (Lab ID: 854644)
  - Cyanide
- MSD (Lab ID: 854643)
  - Cyanide

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

ANALYTICAL RESULTS

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Sample: BSB-GW-01 Lab ID: **10138213001** Collected: 09/14/10 11:53 Received: 09/16/10 09:57 Matrix: Water

MBMG-2

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	ND	ug/L	0.97	0.23	1	09/21/10 17:32	09/29/10 00:08	94-75-7	
Dalapon	ND	ug/L	0.94	0.44	1	09/21/10 17:32	09/29/10 00:08	127-20-8	
2,4-DB	ND	ug/L	2.0	0.53	1	09/21/10 17:32	09/29/10 00:08	94-82-6	
Dicamba	ND	ug/L	0.097	0.031	1	09/21/10 17:32	09/29/10 00:08	1918-00-9	
Dichlorprop	ND	ug/L	0.67	0.20	1	09/21/10 17:32	09/29/10 00:08	120-36-5	
Dinoseb	ND	ug/L	0.19	0.059	1	09/21/10 17:32	09/29/10 00:08	88-85-7	
Pentachlorophenol	ND	ug/L	0.029	0.018	1	09/21/10 17:32	09/29/10 00:08	87-86-5	
2,4,5-T	ND	ug/L	0.20	0.043	1	09/21/10 17:32	09/29/10 00:08	93-76-5	
2,4,5-TP (Silvex)	ND	ug/L	0.20	0.051	1	09/21/10 17:32	09/29/10 00:08	93-72-1	
2,4-DCPA (S)	96	%	65.5-125.7		1	09/21/10 17:32	09/29/10 00:08	19719-28-9	
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Antimony, Dissolved	ND	mg/L	0.00050	0.00016	1	09/24/10 18:37	10/01/10 02:33	7440-36-0	
Arsenic, Dissolved	**0.0014**	mg/L	0.00050	0.000062	1	09/24/10 18:37	10/01/10 02:33	7440-38-2	
Barium, Dissolved	**0.14**	mg/L	0.00030	0.000043	1	09/24/10 18:37	10/01/10 02:33	7440-39-3	
Beryllium, Dissolved	ND	mg/L	0.00020	0.000069	1	09/24/10 18:37	10/01/10 02:33	7440-41-7	
Cadmium, Dissolved	ND	mg/L	0.000080	0.000020	1	09/24/10 18:37	10/01/10 02:33	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.00050	0.00024	1	09/24/10 18:37	10/01/10 02:33	7440-47-3	
Cobalt, Dissolved	ND	mg/L	0.00050	0.00022	1	09/24/10 18:37	10/01/10 02:33	7440-48-4	
Copper, Dissolved	**0.0011**	mg/L	0.00050	0.00020	1	09/24/10 18:37	10/01/10 02:33	7440-50-8	B
Iron, Dissolved	ND	mg/L	0.050	0.0045	1	09/24/10 18:37	10/01/10 02:33	7439-89-6	
Lead, Dissolved	**0.000069J**	mg/L	0.00010	0.000020	1	09/24/10 18:37	10/01/10 02:33	7439-92-1	B
Nickel, Dissolved	**0.00020J**	mg/L	0.00050	0.00019	1	09/24/10 18:37	10/01/10 02:33	7440-02-0	
Selenium, Dissolved	**0.00054**	mg/L	0.00050	0.00010	1	09/24/10 18:37	10/01/10 02:33	7782-49-2	
Silver, Dissolved	ND	mg/L	0.00050	0.000071	1	09/24/10 18:37	10/01/10 02:33	7440-22-4	
Thallium, Dissolved	ND	mg/L	0.00010	0.000050	1	09/24/10 18:37	10/01/10 02:33	7440-28-0	
Vanadium, Dissolved	**0.0072**	mg/L	0.00010	0.000050	1	09/24/10 18:37	10/01/10 02:33	7440-62-2	
Zinc, Dissolved	**0.0086**	mg/L	0.0050	0.0013	1	09/24/10 18:37	10/01/10 02:33	7440-66-6	
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	**0.000058J**	mg/L	0.00020	0.000021	1	09/28/10 16:20	09/29/10 14:26	7439-97-6	B
8260 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	10.0	5.0	1		09/18/10 05:12	67-64-1	
Acetonitrile	ND	ug/L	40.0	20.0	1		09/18/10 05:12	75-05-8	L3
Benzene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		09/18/10 05:12	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		09/18/10 05:12	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		09/18/10 05:12	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		09/18/10 05:12	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		09/18/10 05:12	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		09/18/10 05:12	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	2.0	1		09/18/10 05:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:12	75-00-3	

ANALYTICAL RESULTS

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Sample: BSB-GW-01 **Lab ID: 10138213001** Collected: 09/14/10 11:53 Received: 09/16/10 09:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Chloroform	ND	ug/L	1.0	0.50	1		09/18/10 05:12	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		09/18/10 05:12	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		09/18/10 05:12	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		09/18/10 05:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		09/18/10 05:12	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.50	1		09/18/10 05:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		09/18/10 05:12	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.50	1		09/18/10 05:12	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		09/18/10 05:12	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		09/18/10 05:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		09/18/10 05:12	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		09/18/10 05:12	591-78-6	
Iodomethane	ND	ug/L	4.0	0.035	1		09/18/10 05:12	74-88-4	
Methylene Chloride	ND	ug/L	4.0	0.36	1		09/18/10 05:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		09/18/10 05:12	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:12	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		09/18/10 05:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		09/18/10 05:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		09/18/10 05:12	96-18-4	
Vinyl acetate	ND	ug/L	20.0	0.22	1		09/18/10 05:12	108-05-4	
Vinyl chloride	ND	ug/L	0.40	0.20	1		09/18/10 05:12	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		09/18/10 05:12	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		09/18/10 05:12	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		09/18/10 05:12	95-47-6	
1,2-Dichloroethane-d4 (S)	122	%	75-131		1		09/18/10 05:12	17060-07-0	
Dibromofluoromethane (S)	113	%	75-130		1		09/18/10 05:12	1868-53-7	
4-Bromofluorobenzene (S)	97	%	75-125		1		09/18/10 05:12	460-00-4	
Toluene-d8 (S)	96	%	75-125		1		09/18/10 05:12	2037-26-5	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**839**	umhos/cm	1.0	0.50	1		09/20/10 17:05		

ANALYTICAL RESULTS

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Sample: BSB-GW-01 **Lab ID: 10138213001** Collected: 09/14/10 11:53 Received: 09/16/10 09:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**7.2**	Std. Units	0.10		1		09/20/10 16:30		H6
353.2 Nitrate + Nitrite pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**9.9**	mg/L	0.10	0.020	1		09/29/10 13:05		
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	ND	mg/L	50.0	12.0	1		09/24/10 14:30		
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**148**	mg/L	12.5	2.4	5		09/20/10 10:36	14808-79-8	B,M6
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**56.8**	mg/L	2.0	0.30	1		09/23/10 09:55	16887-00-6	
SM4500CN-E Cyanide	Analytical Method: SM 4500-CN-E								
Cyanide	ND	ug/L	10.0	3.5	1		09/21/10 10:37	57-12-5	

ANALYTICAL RESULTS

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Sample: BSB-GW-02 **Lab ID: 10138213002** Collected: 09/14/10 13:56 Received: 09/16/10 09:57 Matrix: Water

BSB-A1

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	ND	ug/L	0.95	0.23	1	09/21/10 17:32	09/29/10 00:35	94-75-7	
Dalapon	ND	ug/L	0.92	0.44	1	09/21/10 17:32	09/29/10 00:35	127-20-8	
2,4-DB	ND	ug/L	1.9	0.52	1	09/21/10 17:32	09/29/10 00:35	94-82-6	
Dicamba	ND	ug/L	0.095	0.030	1	09/21/10 17:32	09/29/10 00:35	1918-00-9	
Dichlorprop	ND	ug/L	0.66	0.19	1	09/21/10 17:32	09/29/10 00:35	120-36-5	
Dinoseb	ND	ug/L	0.19	0.058	1	09/21/10 17:32	09/29/10 00:35	88-85-7	
Pentachlorophenol	ND	ug/L	0.029	0.017	1	09/21/10 17:32	09/29/10 00:35	87-86-5	
2,4,5-T	ND	ug/L	0.19	0.043	1	09/21/10 17:32	09/29/10 00:35	93-76-5	
2,4,5-TP (Silvex)	ND	ug/L	0.19	0.050	1	09/21/10 17:32	09/29/10 00:35	93-72-1	
2,4-DCPA (S)	92	%	65.5-125.7		1	09/21/10 17:32	09/29/10 00:35	19719-28-9	
8260 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	10.0	5.0	1		09/18/10 05:35	67-64-1	
Acetonitrile	ND	ug/L	40.0	20.0	1		09/18/10 05:35	75-05-8	L3
Benzene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		09/18/10 05:35	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		09/18/10 05:35	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		09/18/10 05:35	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		09/18/10 05:35	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		09/18/10 05:35	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		09/18/10 05:35	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	2.0	1		09/18/10 05:35	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:35	75-00-3	
Chloroform	ND	ug/L	1.0	0.50	1		09/18/10 05:35	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		09/18/10 05:35	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		09/18/10 05:35	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		09/18/10 05:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		09/18/10 05:35	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.50	1		09/18/10 05:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		09/18/10 05:35	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.50	1		09/18/10 05:35	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:35	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		09/18/10 05:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		09/18/10 05:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		09/18/10 05:35	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		09/18/10 05:35	591-78-6	

ANALYTICAL RESULTS

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Sample: BSB-GW-02 **Lab ID: 10138213002** Collected: 09/14/10 13:56 Received: 09/16/10 09:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Iodomethane	ND	ug/L	4.0	0.035	1		09/18/10 05:35	74-88-4	
Methylene Chloride	ND	ug/L	4.0	0.36	1		09/18/10 05:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		09/18/10 05:35	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:35	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		09/18/10 05:35	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		09/18/10 05:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		09/18/10 05:35	96-18-4	
Vinyl acetate	ND	ug/L	20.0	0.22	1		09/18/10 05:35	108-05-4	
Vinyl chloride	ND	ug/L	0.40	0.20	1		09/18/10 05:35	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		09/18/10 05:35	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		09/18/10 05:35	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		09/18/10 05:35	95-47-6	
1,2-Dichloroethane-d4 (S)	118	%	75-131		1		09/18/10 05:35	17060-07-0	
Dibromofluoromethane (S)	116	%	75-130		1		09/18/10 05:35	1868-53-7	
4-Bromofluorobenzene (S)	95	%	75-125		1		09/18/10 05:35	460-00-4	
Toluene-d8 (S)	99	%	75-125		1		09/18/10 05:35	2037-26-5	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**462**	umhos/cm	1.0	0.50	1		09/20/10 17:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**7.2**	Std. Units	0.10		1		09/20/10 16:30		H6
353.2 Nitrate + Nitrite pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**0.47**	mg/L	0.10	0.020	1		09/29/10 13:09		
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	ND	mg/L	50.0	12.0	1		09/24/10 14:30		
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**70.6**	mg/L	12.5	2.4	5		09/20/10 10:39	14808-79-8	B
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**17.4**	mg/L	2.0	0.30	1		09/23/10 09:55	16887-00-6	
SM4500CN-E Cyanide	Analytical Method: SM 4500-CN-E								
Cyanide	ND	ug/L	10.0	3.5	1		09/21/10 10:38	57-12-5	M1

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ANALYTICAL RESULTS

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Sample: BSB-GW-03 BSB-AS **Lab ID: 10138213003** Collected: 09/14/10 13:15 Received: 09/16/10 09:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	ND	ug/L	0.95	0.23	1	09/21/10 17:32	09/29/10 01:01	94-75-7	
Dalapon	ND	ug/L	0.92	0.43	1	09/21/10 17:32	09/29/10 01:01	127-20-8	
2,4-DB	ND	ug/L	1.9	0.51	1	09/21/10 17:32	09/29/10 01:01	94-82-6	
Dicamba	ND	ug/L	0.095	0.030	1	09/21/10 17:32	09/29/10 01:01	1918-00-9	
Dichlorprop	ND	ug/L	0.66	0.19	1	09/21/10 17:32	09/29/10 01:01	120-36-5	
Dinoseb	ND	ug/L	0.19	0.057	1	09/21/10 17:32	09/29/10 01:01	88-85-7	
Pentachlorophenol	ND	ug/L	0.029	0.017	1	09/21/10 17:32	09/29/10 01:01	87-86-5	
2,4,5-T	ND	ug/L	0.19	0.042	1	09/21/10 17:32	09/29/10 01:01	93-76-5	
2,4,5-TP (Silvex)	ND	ug/L	0.19	0.049	1	09/21/10 17:32	09/29/10 01:01	93-72-1	
2,4-DCPA (S)	99	%	65.5-125.7		1	09/21/10 17:32	09/29/10 01:01	19719-28-9	
8260 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	10.0	5.0	1		09/18/10 05:57	67-64-1	
Acetonitrile	ND	ug/L	40.0	20.0	1		09/18/10 05:57	75-05-8	L3
Benzene	ND	ug/L	1.0	0.50	1		09/18/10 05:57	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		09/18/10 05:57	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		09/18/10 05:57	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		09/18/10 05:57	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		09/18/10 05:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		09/18/10 05:57	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		09/18/10 05:57	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	2.0	1		09/18/10 05:57	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:57	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:57	75-00-3	
Chloroform	ND	ug/L	1.0	0.50	1		09/18/10 05:57	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		09/18/10 05:57	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		09/18/10 05:57	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		09/18/10 05:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		09/18/10 05:57	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.50	1		09/18/10 05:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:57	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		09/18/10 05:57	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.50	1		09/18/10 05:57	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 05:57	75-35-4	
cis-1,2-Dichloroethene	**1.8**	ug/L	1.0	0.50	1		09/18/10 05:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 05:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		09/18/10 05:57	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		09/18/10 05:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		09/18/10 05:57	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		09/18/10 05:57	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		09/18/10 05:57	591-78-6	

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ANALYTICAL RESULTS

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Sample: BSB-GW-03 **Lab ID: 10138213003** Collected: 09/14/10 13:15 Received: 09/16/10 09:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Iodomethane	ND	ug/L	4.0	0.035	1		09/18/10 05:57	74-88-4	
Methylene Chloride	ND	ug/L	4.0	0.36	1		09/18/10 05:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		09/18/10 05:57	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		09/18/10 05:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:57	79-34-5	
Tetrachloroethene	**1.1**	ug/L	1.0	0.50	1		09/18/10 05:57	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		09/18/10 05:57	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 05:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		09/18/10 05:57	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 05:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		09/18/10 05:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		09/18/10 05:57	96-18-4	
Vinyl acetate	ND	ug/L	20.0	0.22	1		09/18/10 05:57	108-05-4	
Vinyl chloride	ND	ug/L	0.40	0.20	1		09/18/10 05:57	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		09/18/10 05:57	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		09/18/10 05:57	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		09/18/10 05:57	95-47-6	
1,2-Dichloroethane-d4 (S)	114	%	75-131		1		09/18/10 05:57	17060-07-0	
Dibromofluoromethane (S)	111	%	75-130		1		09/18/10 05:57	1868-53-7	
4-Bromofluorobenzene (S)	96	%	75-125		1		09/18/10 05:57	460-00-4	
Toluene-d8 (S)	97	%	75-125		1		09/18/10 05:57	2037-26-5	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**1160**	umhos/cm	1.0	0.50	1		09/20/10 17:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.2**	Std. Units	0.10		1		09/20/10 16:30		H6
353.2 Nitrate + Nitrite pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**4.3**	mg/L	0.10	0.020	1		09/29/10 13:10		
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	ND	mg/L	50.0	12.0	1		09/24/10 14:30		
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**478**	mg/L	62.5	11.8	25		09/20/10 10:56	14808-79-8	B
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**31.8**	mg/L	2.0	0.30	1		09/23/10 09:55	16887-00-6	
SM4500CN-E Cyanide	Analytical Method: SM 4500-CN-E								
Cyanide	ND	ug/L	10.0	3.5	1		09/21/10 10:41	57-12-5	

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ANALYTICAL RESULTS

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Sample: BSB-GW-04 BSB-AG-R **Lab ID: 10138213004** Collected: 09/15/10 10:30 Received: 09/16/10 09:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	ND	ug/L	0.95	0.23	1	09/21/10 17:32	09/29/10 01:28	94-75-7	
Dalapon	ND	ug/L	0.92	0.44	1	09/21/10 17:32	09/29/10 01:28	127-20-8	
2,4-DB	ND	ug/L	1.9	0.52	1	09/21/10 17:32	09/29/10 01:28	94-82-6	
Dicamba	**0.073J**	ug/L	0.095	0.030	1	09/21/10 17:32	09/29/10 01:28	1918-00-9	
Dichlorprop	ND	ug/L	0.66	0.19	1	09/21/10 17:32	09/29/10 01:28	120-36-5	
Dinoseb	ND	ug/L	0.19	0.058	1	09/21/10 17:32	09/29/10 01:28	88-85-7	
Pentachlorophenol	ND	ug/L	0.029	0.017	1	09/21/10 17:32	09/29/10 01:28	87-86-5	
2,4,5-T	ND	ug/L	0.19	0.043	1	09/21/10 17:32	09/29/10 01:28	93-76-5	
2,4,5-TP (Silvex)	**0.14J**	ug/L	0.19	0.050	1	09/21/10 17:32	09/29/10 01:28	93-72-1	
2,4-DCPA (S)	74	%	65.5-125.7		1	09/21/10 17:32	09/29/10 01:28	19719-28-9	
8260 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	10.0	5.0	1		09/18/10 06:19	67-64-1	
Acetonitrile	ND	ug/L	40.0	20.0	1		09/18/10 06:19	75-05-8	L3
Benzene	**0.56J**	ug/L	1.0	0.50	1		09/18/10 06:19	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		09/18/10 06:19	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		09/18/10 06:19	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		09/18/10 06:19	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		09/18/10 06:19	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		09/18/10 06:19	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		09/18/10 06:19	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	2.0	1		09/18/10 06:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 06:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		09/18/10 06:19	75-00-3	
Chloroform	ND	ug/L	1.0	0.50	1		09/18/10 06:19	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		09/18/10 06:19	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		09/18/10 06:19	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		09/18/10 06:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		09/18/10 06:19	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.50	1		09/18/10 06:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 06:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 06:19	541-73-1	
1,4-Dichlorobenzene	**0.98J**	ug/L	1.0	0.50	1		09/18/10 06:19	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		09/18/10 06:19	110-57-6	
Dichlorodifluoromethane	**2.1**	ug/L	1.0	0.50	1		09/18/10 06:19	75-71-8	
1,1-Dichloroethane	**1.7**	ug/L	1.0	0.50	1		09/18/10 06:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 06:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 06:19	75-35-4	
cis-1,2-Dichloroethene	**4.8**	ug/L	1.0	0.50	1		09/18/10 06:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 06:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		09/18/10 06:19	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		09/18/10 06:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		09/18/10 06:19	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		09/18/10 06:19	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		09/18/10 06:19	591-78-6	

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ANALYTICAL RESULTS

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Sample: BSB-GW-04 **Lab ID: 10138213004** Collected: 09/15/10 10:30 Received: 09/16/10 09:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Iodomethane	ND	ug/L	4.0	0.035	1		09/18/10 06:19	74-88-4	
Methylene Chloride	**0.41J**	ug/L	4.0	0.36	1		09/18/10 06:19	75-09-2	Z3
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		09/18/10 06:19	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		09/18/10 06:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		09/18/10 06:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		09/18/10 06:19	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.50	1		09/18/10 06:19	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		09/18/10 06:19	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 06:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		09/18/10 06:19	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 06:19	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		09/18/10 06:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		09/18/10 06:19	96-18-4	
Vinyl acetate	ND	ug/L	20.0	0.22	1		09/18/10 06:19	108-05-4	
Vinyl chloride	**2.4**	ug/L	0.40	0.20	1		09/18/10 06:19	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		09/18/10 06:19	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		09/18/10 06:19	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		09/18/10 06:19	95-47-6	
1,2-Dichloroethane-d4 (S)	114	%	75-131		1		09/18/10 06:19	17060-07-0	
Dibromofluoromethane (S)	112	%	75-130		1		09/18/10 06:19	1868-53-7	
4-Bromofluorobenzene (S)	94	%	75-125		1		09/18/10 06:19	460-00-4	
Toluene-d8 (S)	95	%	75-125		1		09/18/10 06:19	2037-26-5	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**2080**	umhos/cm	1.0	0.50	1		09/20/10 17:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.3**	Std. Units	0.10		1		09/20/10 16:30		H6
353.2 Nitrate + Nitrite pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**0.12**	mg/L	0.10	0.020	1		09/29/10 13:11		
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	**208**	mg/L	50.0	12.0	1		09/24/10 14:30		
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**942**	mg/L	125	23.5	50		09/20/10 10:50	14808-79-8	B
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**58.1**	mg/L	2.0	0.30	1		09/23/10 10:01	16887-00-6	
SM4500CN-E Cyanide	Analytical Method: SM 4500-CN-E								
Cyanide	ND	ug/L	10.0	3.5	1		09/21/10 10:42	57-12-5	

ANALYTICAL RESULTS

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Sample: TRIP BLANK **Lab ID: 10138213005** Collected: 09/14/10 00:00 Received: 09/16/10 09:57 Matrix: Water

8260 MSV Analytical Method: EPA 8260

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Acetone	ND	ug/L	10.0	5.0	1		09/18/10 00:02	67-64-1	
Acetonitrile	ND	ug/L	40.0	20.0	1		09/18/10 00:02	75-05-8	L3
Benzene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		09/18/10 00:02	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		09/18/10 00:02	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		09/18/10 00:02	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		09/18/10 00:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		09/18/10 00:02	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		09/18/10 00:02	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	2.0	1		09/18/10 00:02	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		09/18/10 00:02	75-00-3	
Chloroform	ND	ug/L	1.0	0.50	1		09/18/10 00:02	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		09/18/10 00:02	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		09/18/10 00:02	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		09/18/10 00:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		09/18/10 00:02	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.50	1		09/18/10 00:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		09/18/10 00:02	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.50	1		09/18/10 00:02	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 00:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 00:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		09/18/10 00:02	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		09/18/10 00:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		09/18/10 00:02	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		09/18/10 00:02	591-78-6	
Iodomethane	ND	ug/L	4.0	0.035	1		09/18/10 00:02	74-88-4	
Methylene Chloride	ND	ug/L	4.0	0.36	1		09/18/10 00:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		09/18/10 00:02	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		09/18/10 00:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		09/18/10 00:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		09/18/10 00:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		09/18/10 00:02	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		09/18/10 00:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		09/18/10 00:02	96-18-4	

ANALYTICAL RESULTS

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Sample: TRIP BLANK **Lab ID: 10138213005** Collected: 09/14/10 00:00 Received: 09/16/10 09:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Vinyl acetate	ND	ug/L	20.0	0.22	1		09/18/10 00:02	108-05-4	
Vinyl chloride	ND	ug/L	0.40	0.20	1		09/18/10 00:02	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		09/18/10 00:02	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		09/18/10 00:02	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		09/18/10 00:02	95-47-6	
1,2-Dichloroethane-d4 (S)	110	%	75-131		1		09/18/10 00:02	17060-07-0	
Dibromofluoromethane (S)	113	%	75-130		1		09/18/10 00:02	1868-53-7	
4-Bromofluorobenzene (S)	97	%	75-125		1		09/18/10 00:02	460-00-4	
Toluene-d8 (S)	98	%	75-125		1		09/18/10 00:02	2037-26-5	

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

QC Batch: GCSV/3102
QC Batch Method: EPA 8151
Analysis Method: EPA 8151
Analysis Description: 8151A GCS Herbicides
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

METHOD BLANK: 117588
Matrix: Water
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,5-T	ug/L	ND	0.19	09/28/10 19:15	
2,4,5-TP (Silvex)	ug/L	ND	0.19	09/28/10 19:15	
2,4-D	ug/L	ND	0.94	09/28/10 19:15	
2,4-DB	ug/L	ND	1.9	09/28/10 19:15	
Dalapon	ug/L	ND	0.91	09/28/10 19:15	
Dicamba	ug/L	ND	0.094	09/28/10 19:15	
Dichlorprop	ug/L	ND	0.65	09/28/10 19:15	
Dinoseb	ug/L	ND	0.19	09/28/10 19:15	
Pentachlorophenol	ug/L	ND	0.028	09/28/10 19:15	
2,4-DCPA (S)	%	100	65.5-125.7	09/28/10 19:15	

LABORATORY CONTROL SAMPLE: 117589

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-T	ug/L	1.2	1.2	101	66.7-116.7	
2,4,5-TP (Silvex)	ug/L	1.2	1.2	102	65.6-127.9	
2,4-D	ug/L	6	6.0	99	62-135.6	
2,4-DB	ug/L	12	12.1	101	59.7-123.3	
Dalapon	ug/L	6	4.9	81	40-123.3	
Dicamba	ug/L	.6	0.54	90	57.5-141.7	
Dichlorprop	ug/L	4.2	4.0	95	50-150	
Dinoseb	ug/L	1.2	1.0	87	44-111.8	
Pentachlorophenol	ug/L	.18	0.18	97	55.5-114	
2,4-DCPA (S)	%			95	65.5-125.7	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117590 117591

Parameter	Units	3518136001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4,5-T	ug/L	0.043U	2.4	2.4	2.3	2.2	95	92	66.7-116	3	40	
2,4,5-TP (Silvex)	ug/L	0.050U	2.4	2.4	2.3	2.2	94	91	65.6-127	4	40	
2,4-D	ug/L	0.23U	12	12	10.5	9.9	88	83	62-135.6	6	40	
2,4-DB	ug/L	0.52U	24	24	21.2	19.3	88	80	59.7-123	9	40	
Dalapon	ug/L	0.44U	12	12	9.2	7.9	76	66	40-123.3	15	40	
Dicamba	ug/L	0.031U	1.2	1.2	1.0	0.96	83	80	57.5-141	4	40	
Dichlorprop	ug/L				7.4	7.1				4	40	
Dinoseb	ug/L	0.058U	2.4	2.4	2.0	1.8	85	75	44-111.8	12	40	
Pentachlorophenol	ug/L	0.017U	.36	.36	0.31	0.26	85	73	55.5-114	15	40	
2,4-DCPA (S)	%						87	83	65.5-125			

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

QC Batch: MPRP/22369
Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8
Analysis Description: 200.8 MET Dissolved
Associated Lab Samples: 10138213001

METHOD BLANK: 854616
Matrix: Water
Associated Lab Samples: 10138213001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Arsenic, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Barium, Dissolved	mg/L	ND	0.00030	10/01/10 12:22	
Beryllium, Dissolved	mg/L	ND	0.00020	10/01/10 12:22	
Cadmium, Dissolved	mg/L	ND	0.000080	10/01/10 12:22	
Chromium, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Cobalt, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Copper, Dissolved	mg/L	0.00033J	0.00050	10/01/10 12:22	
Iron, Dissolved	mg/L	ND	0.050	10/01/10 12:22	
Lead, Dissolved	mg/L	0.000025J	0.00010	10/01/10 12:22	
Nickel, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Selenium, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Silver, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Thallium, Dissolved	mg/L	ND	0.00010	10/01/10 12:22	
Vanadium, Dissolved	mg/L	ND	0.00010	10/01/10 12:22	
Zinc, Dissolved	mg/L	ND	0.0050	10/01/10 12:22	

LABORATORY CONTROL SAMPLE: 854617

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	.08	0.084	104	85-115	
Arsenic, Dissolved	mg/L	.08	0.080	101	85-115	
Barium, Dissolved	mg/L	.08	0.082	103	85-115	
Beryllium, Dissolved	mg/L	.08	0.086	108	85-115	
Cadmium, Dissolved	mg/L	.08	0.081	102	85-115	
Chromium, Dissolved	mg/L	.08	0.083	103	85-115	
Cobalt, Dissolved	mg/L	.08	0.080	100	85-115	
Copper, Dissolved	mg/L	.08	0.081	101	85-115	
Iron, Dissolved	mg/L	1	1.0	104	85-115	
Lead, Dissolved	mg/L	.08	0.086	107	85-115	
Nickel, Dissolved	mg/L	.08	0.081	101	85-115	
Selenium, Dissolved	mg/L	.08	0.080	100	85-115	
Silver, Dissolved	mg/L	.08	0.084	105	85-115	
Thallium, Dissolved	mg/L	.08	0.086	108	85-115	
Vanadium, Dissolved	mg/L	.08	0.081	102	85-115	
Zinc, Dissolved	mg/L	.08	0.085	106	85-115	

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

MATRIX SPIKE SAMPLE: 854618

Parameter	Units	10138195005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	ND	.08	0.084	105	70-130	
Arsenic, Dissolved	mg/L	2.9 ug/L	.08	0.084	102	70-130	
Barium, Dissolved	mg/L	12.6 ug/L	.08	0.097	105	70-130	
Beryllium, Dissolved	mg/L	ND	.08	0.093	116	70-130	
Cadmium, Dissolved	mg/L	0.84 ug/L	.08	0.082	102	70-130	
Chromium, Dissolved	mg/L	ND	.08	0.083	103	70-130	
Cobalt, Dissolved	mg/L	ND	.08	0.080	100	70-130	
Copper, Dissolved	mg/L	0.55 ug/L	.08	0.082	101	70-130	
Iron, Dissolved	mg/L	ND	1	1.1	104	70-130	
Lead, Dissolved	mg/L	ND	.08	0.088	110	70-130	
Nickel, Dissolved	mg/L	ND	.08	0.081	101	70-130	
Selenium, Dissolved	mg/L	ND	.08	0.082	103	70-130	
Silver, Dissolved	mg/L	ND	.08	0.079	99	70-130	
Thallium, Dissolved	mg/L	ND	.08	0.089	111	70-130	
Vanadium, Dissolved	mg/L	0.20 ug/L	.08	0.081	101	70-130	
Zinc, Dissolved	mg/L	78.9 ug/L	.08	0.16	105	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 854619 854620

Parameter	Units	10138233002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony, Dissolved	mg/L	ND	.08	.08	0.089	0.093	111	116	70-130	4	20	
Arsenic, Dissolved	mg/L	0.00096	.08	.08	0.087	0.090	108	112	70-130	3	20	
Barium, Dissolved	mg/L	0.018	.08	.08	0.11	0.11	111	114	70-130	3	20	
Beryllium, Dissolved	mg/L	ND	.08	.08	0.094	0.098	118	122	70-130	4	20	
Cadmium, Dissolved	mg/L	0.0011	.08	.08	0.088	0.090	108	111	70-130	3	20	
Chromium, Dissolved	mg/L	0.00042 J	.08	.08	0.086	0.088	107	110	70-130	3	20	
Cobalt, Dissolved	mg/L	0.00033 J	.08	.08	0.086	0.088	107	110	70-130	2	20	
Copper, Dissolved	mg/L	0.0063	.08	.08	0.090	0.093	105	108	70-130	3	20	
Iron, Dissolved	mg/L	0.0045J	1	1	1.1	1.1	107	112	70-130	5	20	
Lead, Dissolved	mg/L	0.00048	.08	.08	0.091	0.095	114	118	70-130	4	20	
Nickel, Dissolved	mg/L	0.035	.08	.08	0.12	0.12	106	111	70-130	3	20	
Selenium, Dissolved	mg/L	ND	.08	.08	0.087	0.088	109	111	70-130	2	20	
Silver, Dissolved	mg/L	ND	.08	.08	0.013	0.018	16	23	70-130	37	20	D6,M1
Thallium, Dissolved	mg/L	ND	.08	.08	0.092	0.096	116	120	70-130	4	20	
Vanadium, Dissolved	mg/L	0.0025	.08	.08	0.088	0.090	107	109	70-130	2	20	
Zinc, Dissolved	mg/L	0.63	.08	.08	0.70	0.72	81	118	70-130	4	20	

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

QC Batch: MERP/4837
Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1
Analysis Description: 245.1 Mercury - Dissolved
Associated Lab Samples: 10138213001

METHOD BLANK: 860634
Matrix: Water
Associated Lab Samples: 10138213001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	0.000037J	0.00020	09/29/10 14:23	

LABORATORY CONTROL SAMPLE: 860635

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	.005	0.0051	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 860636 860637

Parameter	Units	10138213001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	mg/L	0.000058J	.005	.005	0.0049	0.0049	97	96	85-115	1	20	

MATRIX SPIKE SAMPLE: 860638

Parameter	Units	10138386002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	ND	.005	0.0051	101	85-115	

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

QC Batch: MSV/15354 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004, 10138213005

METHOD BLANK: 855294 Matrix: Water
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004, 10138213005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	09/17/10 23:17	
1,1,1-Trichloroethane	ug/L	ND	1.0	09/17/10 23:17	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	09/17/10 23:17	
1,1,2-Trichloroethane	ug/L	ND	1.0	09/17/10 23:17	
1,1-Dichloroethane	ug/L	ND	1.0	09/17/10 23:17	
1,1-Dichloroethene	ug/L	ND	1.0	09/17/10 23:17	
1,2,3-Trichloropropane	ug/L	ND	1.0	09/17/10 23:17	
1,2-Dibromo-3-chloropropane	ug/L	ND	4.0	09/17/10 23:17	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	09/17/10 23:17	
1,2-Dichlorobenzene	ug/L	ND	1.0	09/17/10 23:17	
1,2-Dichloroethane	ug/L	ND	1.0	09/17/10 23:17	
1,2-Dichloropropane	ug/L	ND	1.0	09/17/10 23:17	
1,3-Dichlorobenzene	ug/L	ND	1.0	09/17/10 23:17	
1,4-Dichlorobenzene	ug/L	ND	1.0	09/17/10 23:17	
2-Butanone (MEK)	ug/L	ND	4.0	09/17/10 23:17	
2-Hexanone	ug/L	ND	4.0	09/17/10 23:17	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	4.0	09/17/10 23:17	
Acetone	ug/L	ND	10.0	09/17/10 23:17	
Acetonitrile	ug/L	ND	40.0	09/17/10 23:17	
Benzene	ug/L	ND	1.0	09/17/10 23:17	
Bromochloromethane	ug/L	ND	1.0	09/17/10 23:17	
Bromodichloromethane	ug/L	ND	1.0	09/17/10 23:17	
Bromoform	ug/L	ND	8.0	09/17/10 23:17	
Bromomethane	ug/L	ND	4.0	09/17/10 23:17	
Carbon disulfide	ug/L	ND	1.0	09/17/10 23:17	
Carbon tetrachloride	ug/L	ND	4.0	09/17/10 23:17	
Chlorobenzene	ug/L	ND	1.0	09/17/10 23:17	
Chloroethane	ug/L	ND	1.0	09/17/10 23:17	
Chloroform	ug/L	ND	1.0	09/17/10 23:17	
Chloromethane	ug/L	ND	4.0	09/17/10 23:17	
cis-1,2-Dichloroethene	ug/L	ND	1.0	09/17/10 23:17	
cis-1,3-Dichloropropene	ug/L	ND	4.0	09/17/10 23:17	
Dibromochloromethane	ug/L	ND	1.0	09/17/10 23:17	
Dibromomethane	ug/L	ND	4.0	09/17/10 23:17	
Dichlorodifluoromethane	ug/L	ND	1.0	09/17/10 23:17	
Ethylbenzene	ug/L	ND	1.0	09/17/10 23:17	
Iodomethane	ug/L	ND	4.0	09/17/10 23:17	
m&p-Xylene	ug/L	ND	2.0	09/17/10 23:17	
Methylene Chloride	ug/L	ND	4.0	09/17/10 23:17	
o-Xylene	ug/L	ND	1.0	09/17/10 23:17	
Styrene	ug/L	ND	1.0	09/17/10 23:17	
Tetrachloroethene	ug/L	ND	1.0	09/17/10 23:17	
Toluene	ug/L	ND	1.0	09/17/10 23:17	

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

METHOD BLANK: 855294 Matrix: Water

Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004, 10138213005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	09/17/10 23:17	
trans-1,3-Dichloropropene	ug/L	ND	4.0	09/17/10 23:17	
trans-1,4-Dichloro-2-butene	ug/L	ND	10.0	09/17/10 23:17	
Trichloroethene	ug/L	ND	1.0	09/17/10 23:17	
Trichlorofluoromethane	ug/L	ND	1.0	09/17/10 23:17	
Vinyl acetate	ug/L	ND	20.0	09/17/10 23:17	
Vinyl chloride	ug/L	ND	0.40	09/17/10 23:17	
Xylene (Total)	ug/L	ND	3.0	09/17/10 23:17	
1,2-Dichloroethane-d4 (S)	%	112	75-131	09/17/10 23:17	
4-Bromofluorobenzene (S)	%	104	75-125	09/17/10 23:17	
Dibromofluoromethane (S)	%	115	75-130	09/17/10 23:17	
Toluene-d8 (S)	%	97	75-125	09/17/10 23:17	

LABORATORY CONTROL SAMPLE: 855295

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.1	102	75-125	
1,1,1-Trichloroethane	ug/L	50	53.5	107	68-130	
1,1,2,2-Tetrachloroethane	ug/L	50	57.6	115	71-125	
1,1,2-Trichloroethane	ug/L	50	56.0	112	75-125	
1,1-Dichloroethane	ug/L	50	55.3	111	75-125	
1,1-Dichloroethene	ug/L	50	51.1	102	69-125	
1,2,3-Trichloropropane	ug/L	50	54.9	110	69-127	
1,2-Dibromo-3-chloropropane	ug/L	50	58.1	116	64-135	
1,2-Dibromoethane (EDB)	ug/L	50	55.3	111	75-126	
1,2-Dichlorobenzene	ug/L	50	51.2	102	75-125	
1,2-Dichloroethane	ug/L	50	57.2	114	75-125	
1,2-Dichloropropane	ug/L	50	54.6	109	75-125	
1,3-Dichlorobenzene	ug/L	50	50.7	101	75-125	
1,4-Dichlorobenzene	ug/L	50	50.7	101	75-125	
2-Butanone (MEK)	ug/L	50	62.4	125	55-140	
2-Hexanone	ug/L	50	57.0	114	70-133	
4-Methyl-2-pentanone (MIBK)	ug/L	50	58.3	117	65-132	
Acetone	ug/L	125	158	126	36-126	
Acetonitrile	ug/L	500	672	134	62-133	L3
Benzene	ug/L	50	55.2	110	75-125	
Bromochloromethane	ug/L	50	55.9	112	75-125	
Bromodichloromethane	ug/L	50	54.1	108	75-125	
Bromoform	ug/L	50	54.4	109	72-131	
Bromomethane	ug/L	50	51.8	104	30-150	
Carbon disulfide	ug/L	50	55.4	111	58-126	
Carbon tetrachloride	ug/L	50	52.9	106	61-140	
Chlorobenzene	ug/L	50	51.6	103	75-125	
Chloroethane	ug/L	50	55.8	112	56-137	
Chloroform	ug/L	50	56.3	113	75-125	

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

LABORATORY CONTROL SAMPLE: 855295

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloromethane	ug/L	50	57.7	115	62-128	
cis-1,2-Dichloroethene	ug/L	50	55.2	110	75-125	
cis-1,3-Dichloropropene	ug/L	50	55.1	110	75-125	
Dibromochloromethane	ug/L	50	53.6	107	75-125	
Dibromomethane	ug/L	50	56.5	113	75-125	
Dichlorodifluoromethane	ug/L	50	61.7	123	54-141	
Ethylbenzene	ug/L	50	53.0	106	75-125	
Iodomethane	ug/L	50	52.8	106	52-150	
m&p-Xylene	ug/L	100	103	103	75-125	
Methylene Chloride	ug/L	50	53.9	108	74-125	
o-Xylene	ug/L	50	52.0	104	75-125	
Styrene	ug/L	50	53.4	107	75-125	
Tetrachloroethene	ug/L	50	51.1	102	72-125	
Toluene	ug/L	50	51.4	103	75-125	
trans-1,2-Dichloroethene	ug/L	50	52.7	105	70-125	
trans-1,3-Dichloropropene	ug/L	50	55.1	110	75-125	
trans-1,4-Dichloro-2-butene	ug/L	125	141	113	75-129	
Trichloroethene	ug/L	50	51.8	104	75-125	
Trichlorofluoromethane	ug/L	50	57.4	115	68-132	
Vinyl acetate	ug/L	50	64.5	129	71-136	
Vinyl chloride	ug/L	50	58.2	116	62-132	
Xylene (Total)	ug/L	150	155	103	75-125	
1,2-Dichloroethane-d4 (S)	%			111	75-131	
4-Bromofluorobenzene (S)	%			97	75-125	
Dibromofluoromethane (S)	%			114	75-130	
Toluene-d8 (S)	%			100	75-125	

MATRIX SPIKE SAMPLE: 855296

Parameter	Units	10138211001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	50	51.1	102	72-133	
1,1,1-Trichloroethane	ug/L	2.2	50	59.4	114	65-150	
1,1,2,2-Tetrachloroethane	ug/L	ND	50	55.3	111	63-138	
1,1,2-Trichloroethane	ug/L	ND	50	53.5	107	68-131	
1,1-Dichloroethane	ug/L	ND	50	55.7	111	71-131	
1,1-Dichloroethene	ug/L	ND	50	55.2	110	66-145	
1,2,3-Trichloropropane	ug/L	ND	50	54.2	108	61-139	
1,2-Dibromo-3-chloropropane	ug/L	ND	50	53.9	108	53-150	
1,2-Dibromoethane (EDB)	ug/L	ND	50	53.7	107	69-133	
1,2-Dichlorobenzene	ug/L	ND	50	50.6	101	72-131	
1,2-Dichloroethane	ug/L	ND	50	55.2	110	62-148	
1,2-Dichloropropane	ug/L	ND	50	54.9	110	74-128	
1,3-Dichlorobenzene	ug/L	ND	50	50.5	101	73-130	
1,4-Dichlorobenzene	ug/L	ND	50	50.1	100	71-132	
2-Butanone (MEK)	ug/L	ND	50	59.2	118	46-140	
2-Hexanone	ug/L	ND	50	55.9	112	50-147	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	50	55.1	110	59-145	

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QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

MATRIX SPIKE SAMPLE: 855296

Parameter	Units	10138211001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	ND	125	147	118	36-126	
Acetonitrile	ug/L	ND	500	656	131	62-133	
Benzene	ug/L	ND	50	56.1	112	70-133	
Bromochloromethane	ug/L	ND	50	54.9	110	69-137	
Bromodichloromethane	ug/L	ND	50	53.4	107	73-134	
Bromoform	ug/L	ND	50	53.0	106	56-144	
Bromomethane	ug/L	ND	50	55.9	112	30-150	
Carbon disulfide	ug/L	ND	50	58.7	117	54-146	
Carbon tetrachloride	ug/L	ND	50	56.1	112	55-150	
Chlorobenzene	ug/L	ND	50	51.3	103	71-132	
Chloroethane	ug/L	ND	50	61.0	122	50-150	
Chloroform	ug/L	ND	50	56.3	113	68-138	
Chloromethane	ug/L	ND	50	62.4	125	61-148	
cis-1,2-Dichloroethene	ug/L	ND	50	54.6	109	68-135	
cis-1,3-Dichloropropene	ug/L	ND	50	53.3	107	70-134	
Dibromochloromethane	ug/L	ND	50	51.7	103	67-135	
Dibromomethane	ug/L	ND	50	56.8	114	74-130	
Dichlorodifluoromethane	ug/L	ND	50	74.9	150	44-150	
Ethylbenzene	ug/L	ND	50	53.1	106	66-133	
Iodomethane	ug/L	ND	50	53.9	108	50-150	
m&p-Xylene	ug/L	ND	100	100	100	63-130	
Methylene Chloride	ug/L	ND	50	53.1	106	69-126	
o-Xylene	ug/L	ND	50	50.2	100	66-132	
Styrene	ug/L	ND	50	39.4	79	68-138	
Tetrachloroethene	ug/L	ND	50	53.0	106	70-138	
Toluene	ug/L	ND	50	50.8	102	65-127	
trans-1,2-Dichloroethene	ug/L	ND	50	54.4	109	67-131	
trans-1,3-Dichloropropene	ug/L	ND	50	53.2	106	64-138	
trans-1,4-Dichloro-2-butene	ug/L	ND	125	140	112	58-143	
Trichloroethene	ug/L	104	50	161	115	70-133	
Trichlorofluoromethane	ug/L	ND	50	67.5	135	59-150	
Vinyl acetate	ug/L	ND	50	56.7	113	61-136	
Vinyl chloride	ug/L	ND	50	65.8	132	59-150	
Xylene (Total)	ug/L	ND	150	151	100	65-130	
1,2-Dichloroethane-d4 (S)	%				111	75-131	
4-Bromofluorobenzene (S)	%				94	75-125	
Dibromofluoromethane (S)	%				108	75-130	
Toluene-d8 (S)	%				97	75-125	

SAMPLE DUPLICATE: 855297

Parameter	Units	10138211002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	2.1	2.0	4	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

SAMPLE DUPLICATE: 855297

Parameter	Units	10138211002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1-Dichloroethene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	
Acetonitrile	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon disulfide	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Iodomethane	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		30	
Trichloroethene	ug/L	84.6	82.1	3	30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	116	111	4		
4-Bromofluorobenzene (S)	%	95	101	5		

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

SAMPLE DUPLICATE: 855297

Parameter	Units	10138211002 Result	Dup Result	RPD	Max RPD	Qualifiers
Dibromofluoromethane (S)	%	117	112	4		
Toluene-d8 (S)	%	95	96	.8		

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

QC Batch: WET/20188
Analysis Method: EPA 120.1
QC Batch Method: EPA 120.1
Analysis Description: 120.1 Specific Conductance
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

METHOD BLANK: 856152
Matrix: Water
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	0.72J	1.0	09/20/10 17:05	

LABORATORY CONTROL SAMPLE: 856153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	989	99	90-110	

SAMPLE DUPLICATE: 856154

Parameter	Units	10138213001 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	839	842	.4	20	

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

QC Batch: WET/20187
Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

LABORATORY CONTROL SAMPLE: 856151

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	5	5.1	102	98-102	H6

SAMPLE DUPLICATE: 856149

Parameter	Units	10138230001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	9.2	9.2	0	3	H6

SAMPLE DUPLICATE: 856150

Parameter	Units	10138253001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	3	H6

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

QC Batch: WETA/9684
Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

METHOD BLANK: 861960
Matrix: Water
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.10	09/29/10 13:01	

LABORATORY CONTROL SAMPLE: 861961

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	5	5.1	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 861962 861963

Parameter	Units	10138213001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	9.9	5	5	15.9	15.9	120	120	80-120	.1	20	

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

QC Batch: WETA/9661
Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4
Analysis Description: 410.4 COD
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

METHOD BLANK: 859336
Matrix: Water
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	50.0	09/24/10 14:30	

LABORATORY CONTROL SAMPLE: 859337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	300	299	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 859338 859339

Parameter	Units	10138006005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	52700 ug/L	250	250	298	297	98	98	90-110	.2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 859340 859341

Parameter	Units	10138230001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	546	250	250	740	725	78	72	90-110	2	20	M1

QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

QC Batch: WETA/9621
Analysis Method: ASTM D516-02
QC Batch Method: ASTM D516-02
Analysis Description: ASTM D516-9002 Sulfate Water
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

METHOD BLANK: 856124
Matrix: Water
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	0.84J	2.5	09/20/10 10:12	

LABORATORY CONTROL SAMPLE: 856125

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7.5	7.5	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 856126 856127

Parameter	Units	10138294001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	80.6	20	20	95.8	94.8	76	71	80-120	1	30	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 856128 856129

Parameter	Units	10138213001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	148	20	20	174	175	128	132	80-120	.6	30	M6

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QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

QC Batch: WETA/9646
Analysis Method: SM 4500-Cl E
QC Batch Method: SM 4500-Cl E
Analysis Description: SM4500Cl-E Chloride
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

METHOD BLANK: 858419
Matrix: Water
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	2.0	09/23/10 09:52	

LABORATORY CONTROL SAMPLE: 858420

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	30	32.1	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 858421 858422

Parameter	Units	10137911008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	47.0	30	30	73.1	73.4	87	88	80-120	.3	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 858423 858424

Parameter	Units	10138213004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	58.1	30	30	85.6	84.3	92	87	80-120	1	30	

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QUALITY CONTROL DATA

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

QC Batch: WETA/9616
QC Batch Method: SM 4500-CN-E
Analysis Method: SM 4500-CN-E
Analysis Description: SM4500CN-E Cyanide
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

METHOD BLANK: 854640
Matrix: Water
Associated Lab Samples: 10138213001, 10138213002, 10138213003, 10138213004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	ug/L	ND	10.0	09/21/10 10:21	

LABORATORY CONTROL SAMPLE: 854641

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	250	240	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 854642 854643

Parameter	Units	10137735001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	ug/L	0.023 mg/L	250	250	212	187	76	66	80-120	12	30	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 854644 854645

Parameter	Units	10138213002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	ug/L	ND	250	250	12.3	253	5	101	80-120	181	30	D6,M1

QUALIFIERS

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis
PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
H6	Analysis initiated more than 15 minutes after sample collection.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
Z3	Methylene chloride is a common laboratory contaminant. Results for this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 7003 000 OLD LANDFILL/CLARK
Pace Project No.: 10138213

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10138213001	BSB-GW-01	EPA 8151	GCSV/3102	EPA 8151	GCSV/2398
10138213002	BSB-GW-02	EPA 8151	GCSV/3102	EPA 8151	GCSV/2398
10138213003	BSB-GW-03	EPA 8151	GCSV/3102	EPA 8151	GCSV/2398
10138213004	BSB-GW-04	EPA 8151	GCSV/3102	EPA 8151	GCSV/2398
10138213001	BSB-GW-01	EPA 200.8	MPRP/22369	EPA 200.8	ICPM/9178
10138213001	BSB-GW-01	EPA 245.1	MERP/4837	EPA 245.1	MERC/5669
10138213001	BSB-GW-01	EPA 8260	MSV/15354		
10138213002	BSB-GW-02	EPA 8260	MSV/15354		
10138213003	BSB-GW-03	EPA 8260	MSV/15354		
10138213004	BSB-GW-04	EPA 8260	MSV/15354		
10138213005	TRIP BLANK	EPA 8260	MSV/15354		
10138213001	BSB-GW-01	EPA 120.1	WET/20188		
10138213002	BSB-GW-02	EPA 120.1	WET/20188		
10138213003	BSB-GW-03	EPA 120.1	WET/20188		
10138213004	BSB-GW-04	EPA 120.1	WET/20188		
10138213001	BSB-GW-01	SM 4500-H+B	WET/20187		
10138213002	BSB-GW-02	SM 4500-H+B	WET/20187		
10138213003	BSB-GW-03	SM 4500-H+B	WET/20187		
10138213004	BSB-GW-04	SM 4500-H+B	WET/20187		
10138213001	BSB-GW-01	EPA 353.2	WETA/9684		
10138213002	BSB-GW-02	EPA 353.2	WETA/9684		
10138213003	BSB-GW-03	EPA 353.2	WETA/9684		
10138213004	BSB-GW-04	EPA 353.2	WETA/9684		
10138213001	BSB-GW-01	EPA 410.4	WETA/9661		
10138213002	BSB-GW-02	EPA 410.4	WETA/9661		
10138213003	BSB-GW-03	EPA 410.4	WETA/9661		
10138213004	BSB-GW-04	EPA 410.4	WETA/9661		
10138213001	BSB-GW-01	ASTM D516-02	WETA/9621		
10138213002	BSB-GW-02	ASTM D516-02	WETA/9621		
10138213003	BSB-GW-03	ASTM D516-02	WETA/9621		
10138213004	BSB-GW-04	ASTM D516-02	WETA/9621		
10138213001	BSB-GW-01	SM 4500-Cl E	WETA/9646		
10138213002	BSB-GW-02	SM 4500-Cl E	WETA/9646		
10138213003	BSB-GW-03	SM 4500-Cl E	WETA/9646		
10138213004	BSB-GW-04	SM 4500-Cl E	WETA/9646		
10138213001	BSB-GW-01	SM 4500-CN-E	WETA/9616		
10138213002	BSB-GW-02	SM 4500-CN-E	WETA/9616		
10138213003	BSB-GW-03	SM 4500-CN-E	WETA/9616		
10138213004	BSB-GW-04	SM 4500-CN-E	WETA/9616		

Pace Analytical™

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

September 24, 2010

Client Services
Pace Analytical Services, Inc.
1700 Elm Street
Suite 200
Minneapolis, MN 55414

RE: Project 20113968
Project ID: 10138213

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on September 17, 2010. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Karen H Brown

Karen Brown
karen.brown@pacelabs.com

ACCREDITED IN ACCORDANCE WITH nelac

REPORT OF LABORATORY ANALYSIS

Project: 20113968

Client: PASI Minnesota

Project ID: 10138213

Washington Department of Ecology C2078

Oregon Environmental Laboratory Accreditation - LA200001

U.S. Dept. of Agriculture Foreign Soil Import P330-10-00119

Pennsylviania Dept. of Env Protection (NELAC) 68-04202

Texas Commission on Env. Quality (NELAC) T104704405-09-TX

Kansas Department of Health and Environment (NELAC) E-10266

Florida Department of Health (NELAC) E87595

Louisiana Dept. of Health and Hospitals (NELAC) LA100024

Louisiana Dept. of Environmental Quality (NELAC/LELAP) 02006

Sample Cross Reference

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20113968

Client: PASI Minnesota

Project ID: 10138213

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
BSB-GW-01	20818665	Water	14-Sep-10 11:53	17-Sep-10 10:00
BSB-GW-02	20818668	Water	14-Sep-10 13:56	17-Sep-10 10:00
BSB-GW-03	20818669	Water	14-Sep-10 13:15	17-Sep-10 10:00
BSB-GW-04	20818670	Water	15-Sep-10 10:30	17-Sep-10 10:00

Project Narrative

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20113968

Sample Receipt Condition:

All samples were received in accordance with EPA protocol.

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Matrix Spikes and Duplicates:

MS or MSD recoveries outside of QC limits are qualified in the Report of Quality Control section.

Surrogates:

All surrogate recoveries were within QC limits.

QC Cross Reference

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20113968

Analytical Method	Batch	Sample used for QC
EPA 8270	146667	Batch sample from another client

Narrative1 9/24/2010 19:25:17

For the sample used as the original for the DUP or MS/MSD for the batch:

Project sample means a sample from this project was used.
Client sample means a sample from the same client but in a different project was used.
Batch sample means a sample from a different client was used.

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-01 MBM6-2

Project ID: 10138213

Lab ID: 20818665

Description: None

Method: EPA 8270
GCMS SVOAs Dual pH

Project: 20113968

Site: None

Matrix: Water **% Moisture:** n/a

Prep Level: Water **Batch:** 146792

Collected: 14-Sep-10 **Received:** 17-Sep-10

Prepared: 21-Sep-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		10.0	2.75		23-Sep-10 12:32 JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99		23-Sep-10 12:32 JAM
120-12-7	Anthracene	1	ND		10.0	2.81		23-Sep-10 12:32 JAM
92-87-5	Benzidine	1	ND		30.0	30.0		23-Sep-10 12:32 JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91		23-Sep-10 12:32 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56		23-Sep-10 12:32 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60		23-Sep-10 12:32 JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60		23-Sep-10 12:32 JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32		23-Sep-10 12:32 JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79		23-Sep-10 12:32 JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40		23-Sep-10 12:32 JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63		23-Sep-10 12:32 JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44		23-Sep-10 12:32 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62		23-Sep-10 12:32 JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63		23-Sep-10 12:32 JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97		23-Sep-10 12:32 JAM
106-48-9	4-Chlorophenol	1	ND		10.0	10.0		23-Sep-10 12:32 JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93		23-Sep-10 12:32 JAM
218-01-9	Chrysene	1	ND		10.0	2.98		23-Sep-10 12:32 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95		23-Sep-10 12:32 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38		23-Sep-10 12:32 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54		23-Sep-10 12:32 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00		23-Sep-10 12:32 JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68		23-Sep-10 12:32 JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37		23-Sep-10 12:32 JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32		23-Sep-10 12:32 JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45		23-Sep-10 12:32 JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43		23-Sep-10 12:32 JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58		23-Sep-10 12:32 JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41		23-Sep-10 12:32 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52		23-Sep-10 12:32 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10		23-Sep-10 12:32 JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57		23-Sep-10 12:32 JAM
122-66-7	1,2-Diphenylhydrazine	1	ND		10.0	3.50		23-Sep-10 12:32 JAM

Protocol 9/24/2010 19:25:18

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Client: PASI Minnesota

Client ID: BSB-GW-01

Project: 20113968

Project ID: 10138213

Site: None

Lab ID: 20818665

Matrix: Water

% Moisture: n/a

Description: None

Prep Level: Water

Batch: 146792

Method: EPA 8270
GCMS SVOAs Dual pH

Collected: 14-Sep-10

Received: 17-Sep-10

Prepared: 21-Sep-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0	4.50		23-Sep-10 12:32 JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75		23-Sep-10 12:32 JAM
86-73-7	Fluorene	1	ND		10.0	3.15		23-Sep-10 12:32 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84		23-Sep-10 12:32 JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26		23-Sep-10 12:32 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750		23-Sep-10 12:32 JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878		23-Sep-10 12:32 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24		23-Sep-10 12:32 JAM
78-59-1	Isophorone	1	ND		10.0	2.79		23-Sep-10 12:32 JAM
90-12-0	1-Methylnaphthalene	1	ND		10.0	2.49		23-Sep-10 12:32 JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74		23-Sep-10 12:32 JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97		23-Sep-10 12:32 JAM
	3&4-Methylphenol	1	ND		10.0	1.27		23-Sep-10 12:32 JAM
91-20-3	Naphthalene	1	ND		10.0	2.59		23-Sep-10 12:32 JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23		23-Sep-10 12:32 JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23		23-Sep-10 12:32 JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95		23-Sep-10 12:32 JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27		23-Sep-10 12:32 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05		23-Sep-10 12:32 JAM
930-55-2	N-Nitrosopyrrolidine	1	ND		10.0	1.30		23-Sep-10 12:32 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40		23-Sep-10 12:32 JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99		23-Sep-10 12:32 JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11		23-Sep-10 12:32 JAM
108-95-2	Phenol	1	ND		10.0	2.88		23-Sep-10 12:32 JAM
129-00-0	Pyrene	1	ND		10.0	3.11		23-Sep-10 12:32 JAM
110-86-1	Pyridine	1	ND		10.0	2.19		23-Sep-10 12:32 JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60		23-Sep-10 12:32 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48		23-Sep-10 12:32 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86		23-Sep-10 12:32 JAM

63 compound(s) reported

Protocol 9/24/2010 19:25:19

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Client: PASI Minnesota

Client ID: BSB-GW-02 BSB-A1

Project ID: 10138213

Lab ID: 20818668

Description: None

Method: EPA 8270
GCMS SVOAs Dual pH

Project: 20113968

Site: None

Matrix: Water **% Moisture:** n/a

Prep Level: Water **Batch:** 146667

Collected: 14-Sep-10 **Received:** 17-Sep-10

Prepared: 20-Sep-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		10.0	2.75		22-Sep-10 17:34 JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99		22-Sep-10 17:34 JAM
120-12-7	Anthracene	1	ND		10.0	2.81		22-Sep-10 17:34 JAM
92-87-5	Benzidine	1	ND		30.0	30.0		22-Sep-10 17:34 JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91		22-Sep-10 17:34 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56		22-Sep-10 17:34 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60		22-Sep-10 17:34 JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60		22-Sep-10 17:34 JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32		22-Sep-10 17:34 JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79		22-Sep-10 17:34 JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40		22-Sep-10 17:34 JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63		22-Sep-10 17:34 JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44		22-Sep-10 17:34 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62		22-Sep-10 17:34 JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63		22-Sep-10 17:34 JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97		22-Sep-10 17:34 JAM
106-48-9	4-Chlorophenol	1	ND		10.0	10.0		22-Sep-10 17:34 JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93		22-Sep-10 17:34 JAM
218-01-9	Chrysene	1	ND		10.0	2.98		22-Sep-10 17:34 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95		22-Sep-10 17:34 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38		22-Sep-10 17:34 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54		22-Sep-10 17:34 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00		22-Sep-10 17:34 JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68		22-Sep-10 17:34 JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37		22-Sep-10 17:34 JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32		22-Sep-10 17:34 JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45		22-Sep-10 17:34 JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43		22-Sep-10 17:34 JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58		22-Sep-10 17:34 JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41		22-Sep-10 17:34 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52		22-Sep-10 17:34 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10		22-Sep-10 17:34 JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57		22-Sep-10 17:34 JAM
122-66-7	1,2-Diphenylhydrazine	1	ND		10.0	3.50		22-Sep-10 17:34 JAM

Protocol 9/24/2010 19:25:19

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-02
Project: 20113968
Project ID: 10138213
Site: None
Lab ID: 20818668
Matrix: Water
% Moisture: n/a
Description: None
Prep Level: Water
Batch: 146667
Method: EPA 8270
GCMS SVOAs Dual pH
Collected: 14-Sep-10
Received: 17-Sep-10
Prepared: 20-Sep-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0	4.50		22-Sep-10 17:34	JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75		22-Sep-10 17:34	JAM
86-73-7	Fluorene	1	ND		10.0	3.15		22-Sep-10 17:34	JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84		22-Sep-10 17:34	JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26		22-Sep-10 17:34	JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750		22-Sep-10 17:34	JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878		22-Sep-10 17:34	JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24		22-Sep-10 17:34	JAM
78-59-1	Isophorone	1	ND		10.0	2.79		22-Sep-10 17:34	JAM
90-12-0	1-Methylnaphthalene	1	ND		10.0	2.49		22-Sep-10 17:34	JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74		22-Sep-10 17:34	JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97		22-Sep-10 17:34	JAM
	3&4-Methylphenol	1	ND		10.0	1.27		22-Sep-10 17:34	JAM
91-20-3	Naphthalene	1	ND		10.0	2.59		22-Sep-10 17:34	JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23		22-Sep-10 17:34	JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23		22-Sep-10 17:34	JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95		22-Sep-10 17:34	JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27		22-Sep-10 17:34	JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05		22-Sep-10 17:34	JAM
930-55-2	N-Nitrosopyrrolidine	1	ND		10.0	1.30		22-Sep-10 17:34	JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40		22-Sep-10 17:34	JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99		22-Sep-10 17:34	JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11		22-Sep-10 17:34	JAM
108-95-2	Phenol	1	ND		10.0	2.88		22-Sep-10 17:34	JAM
129-00-0	Pyrene	1	ND		10.0	3.11		22-Sep-10 17:34	JAM
110-86-1	Pyridine	1	ND		10.0	2.19		22-Sep-10 17:34	JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60		22-Sep-10 17:34	JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48		22-Sep-10 17:34	JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86		22-Sep-10 17:34	JAM

63 compound(s) reported

Protocol 9/24/2010 19:25:19

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-02
Project: 20113968
Project ID: 10138213
Site: None
Lab ID: 20818668
Matrix: Water
% Moisture: n/a
Description: None
Prep Level: Water
Batch: 146615
Method: EPA 8151
8151 Herbs Water
Collected: 14-Sep-10
Received: 17-Sep-10
Prepared: 17-Sep-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
94-74-6	MCPA	1	ND		250.	125.		21-Sep-10 21:41 SPP1
7085-19-0	MCPP	1	ND		250.	125.		21-Sep-10 21:41 SPP1

2 compound(s) reported

Protocol 9/24/2010 19:25:19

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Pace Analytical™

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-03 BSB-AS

Project: 20113968

Project ID: 10138213

Site: None

Lab ID: 20818669

Matrix: Water **% Moisture:** n/a

Description: None

Prep Level: Water **Batch:** 146667

Method: EPA 8270
GCMS SVOAs Dual pH

Collected: 14-Sep-10 **Received:** 17-Sep-10

Prepared: 20-Sep-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis	
83-32-9	Acenaphthene	1	ND		10.0	2.75		22-Sep-10 17:59	JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99		22-Sep-10 17:59	JAM
120-12-7	Anthracene	1	ND		10.0	2.81		22-Sep-10 17:59	JAM
92-87-5	Benzidine	1	ND		30.0	30.0		22-Sep-10 17:59	JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91		22-Sep-10 17:59	JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56		22-Sep-10 17:59	JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60		22-Sep-10 17:59	JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60		22-Sep-10 17:59	JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32		22-Sep-10 17:59	JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79		22-Sep-10 17:59	JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40		22-Sep-10 17:59	JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63		22-Sep-10 17:59	JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44		22-Sep-10 17:59	JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62		22-Sep-10 17:59	JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63		22-Sep-10 17:59	JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97		22-Sep-10 17:59	JAM
106-48-9	4-Chlorophenol	1	ND		10.0	10.0		22-Sep-10 17:59	JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93		22-Sep-10 17:59	JAM
218-01-9	Chrysene	1	ND		10.0	2.98		22-Sep-10 17:59	JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95		22-Sep-10 17:59	JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38		22-Sep-10 17:59	JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54		22-Sep-10 17:59	JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00		22-Sep-10 17:59	JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68		22-Sep-10 17:59	JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37		22-Sep-10 17:59	JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32		22-Sep-10 17:59	JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45		22-Sep-10 17:59	JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43		22-Sep-10 17:59	JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58		22-Sep-10 17:59	JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41		22-Sep-10 17:59	JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52		22-Sep-10 17:59	JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10		22-Sep-10 17:59	JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57		22-Sep-10 17:59	JAM
122-66-7	1,2-Diphenylhydrazine	1	ND		10.0	3.50		22-Sep-10 17:59	JAM

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Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-03
Project ID: 10138213
Lab ID: 20818669
Description: None
Method: EPA 8270
GCMS SVOAs Dual pH

Project: 20113968
Site: None
Matrix: Water **% Moisture:** n/a
Prep Level: Water **Batch:** 146667

Collected: 14-Sep-10 **Received:** 17-Sep-10
Prepared: 20-Sep-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0	4.50		22-Sep-10 17:59 JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75		22-Sep-10 17:59 JAM
86-73-7	Fluorene	1	ND		10.0	3.15		22-Sep-10 17:59 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84		22-Sep-10 17:59 JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26		22-Sep-10 17:59 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750		22-Sep-10 17:59 JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878		22-Sep-10 17:59 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24		22-Sep-10 17:59 JAM
78-59-1	Isophorone	1	ND		10.0	2.79		22-Sep-10 17:59 JAM
90-12-0	1-Methylnaphthalene	1	ND		10.0	2.49		22-Sep-10 17:59 JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74		22-Sep-10 17:59 JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97		22-Sep-10 17:59 JAM
	3&4-Methylphenol	1	ND		10.0	1.27		22-Sep-10 17:59 JAM
91-20-3	Naphthalene	1	ND		10.0	2.59		22-Sep-10 17:59 JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23		22-Sep-10 17:59 JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23		22-Sep-10 17:59 JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95		22-Sep-10 17:59 JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27		22-Sep-10 17:59 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05		22-Sep-10 17:59 JAM
930-55-2	N-Nitrosopyrrolidine	1	ND		10.0	1.30		22-Sep-10 17:59 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40		22-Sep-10 17:59 JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99		22-Sep-10 17:59 JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11		22-Sep-10 17:59 JAM
108-95-2	Phenol	1	ND		10.0	2.88		22-Sep-10 17:59 JAM
129-00-0	Pyrene	1	ND		10.0	3.11		22-Sep-10 17:59 JAM
110-86-1	Pyridine	1	ND		10.0	2.19		22-Sep-10 17:59 JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60		22-Sep-10 17:59 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48		22-Sep-10 17:59 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86		22-Sep-10 17:59 JAM

63 compound(s) reported

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Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

		Client:	PASI Minnesota		
Client ID:	BSB-GW-03	**Project:**	20113968		
Project ID:	10138213	**Site:**	None		
Lab ID:	20818669	**Matrix:**	Water	**% Moisture:**	n/a
Description:	None	**Prep Level:**	Water	**Batch:**	146615
Method:	EPA 8151 8151 Herbs Water				
		Collected:	14-Sep-10	**Received:**	17-Sep-10
		Prepared:	17-Sep-10		

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
94-74-6	MCPA	1	ND		250.	125.		21-Sep-10 22:04 SPP1
7085-19-0	MCPP	1	ND		250.	125.		21-Sep-10 22:04 SPP1

2 compound(s) reported

Protocol 9/24/2010 19:25:19

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Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Client: PASI Minnesota

Client ID: BSB-GW-04 BSB-A6R
Project ID: 10138213
Lab ID: 20818670
Description: None
Method: EPA 8270
GCMS SVOAs Dual pH

Project: 20113968
Site: None
Matrix: Water **% Moisture:** n/a
Prep Level: Water **Batch:** 146667
Collected: 15-Sep-10 **Received:** 17-Sep-10
Prepared: 20-Sep-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		10.0	2.75		22-Sep-10 18:24 JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99		22-Sep-10 18:24 JAM
120-12-7	Anthracene	1	ND		10.0	2.81		22-Sep-10 18:24 JAM
92-87-5	Benzidine	1	ND		30.0	30.0		22-Sep-10 18:24 JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91		22-Sep-10 18:24 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56		22-Sep-10 18:24 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60		22-Sep-10 18:24 JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60		22-Sep-10 18:24 JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32		22-Sep-10 18:24 JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79		22-Sep-10 18:24 JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40		22-Sep-10 18:24 JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63		22-Sep-10 18:24 JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44		22-Sep-10 18:24 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62		22-Sep-10 18:24 JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63		22-Sep-10 18:24 JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97		22-Sep-10 18:24 JAM
106-48-9	4-Chlorophenol	1	ND		10.0	10.0		22-Sep-10 18:24 JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93		22-Sep-10 18:24 JAM
218-01-9	Chrysene	1	ND		10.0	2.98		22-Sep-10 18:24 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95		22-Sep-10 18:24 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38		22-Sep-10 18:24 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54		22-Sep-10 18:24 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00		22-Sep-10 18:24 JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68		22-Sep-10 18:24 JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37		22-Sep-10 18:24 JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32		22-Sep-10 18:24 JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45		22-Sep-10 18:24 JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43		22-Sep-10 18:24 JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58		22-Sep-10 18:24 JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41		22-Sep-10 18:24 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52		22-Sep-10 18:24 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10		22-Sep-10 18:24 JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57		22-Sep-10 18:24 JAM
122-66-7	1,2-Diphenylhydrazine	1	ND		10.0	3.50		22-Sep-10 18:24 JAM

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Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Client: PASI Minnesota

Client ID: BSB-GW-04
Project: 20113968
Project ID: 10138213
Site: None
Lab ID: 20818670
Matrix: Water **% Moisture:** n/a
Description: None
Prep Level: Water **Batch:** 146667
Method: EPA 8270
GCMS SVOAs Dual pH
Collected: 15-Sep-10 **Received:** 17-Sep-10
Prepared: 20-Sep-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis	
117-81-7	bis(2-Ethylhexyl)phthalate	1	5.33	J	10.0	4.50		22-Sep-10 18:24	JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75		22-Sep-10 18:24	JAM
86-73-7	Fluorene	1	ND		10.0	3.15		22-Sep-10 18:24	JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84		22-Sep-10 18:24	JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26		22-Sep-10 18:24	JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750		22-Sep-10 18:24	JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878		22-Sep-10 18:24	JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24		22-Sep-10 18:24	JAM
78-59-1	Isophorone	1	ND		10.0	2.79		22-Sep-10 18:24	JAM
90-12-0	1-Methylnaphthalene	1	ND		10.0	2.49		22-Sep-10 18:24	JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74		22-Sep-10 18:24	JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97		22-Sep-10 18:24	JAM
	3&4-Methylphenol	1	ND		10.0	1.27		22-Sep-10 18:24	JAM
91-20-3	Naphthalene	1	ND		10.0	2.59		22-Sep-10 18:24	JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23		22-Sep-10 18:24	JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23		22-Sep-10 18:24	JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95		22-Sep-10 18:24	JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27		22-Sep-10 18:24	JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05		22-Sep-10 18:24	JAM
930-55-2	N-Nitrosopyrrolidine	1	ND		10.0	1.30		22-Sep-10 18:24	JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40		22-Sep-10 18:24	JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99		22-Sep-10 18:24	JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11		22-Sep-10 18:24	JAM
108-95-2	Phenol	1	ND		10.0	2.88		22-Sep-10 18:24	JAM
129-00-0	Pyrene	1	ND		10.0	3.11		22-Sep-10 18:24	JAM
110-86-1	Pyridine	1	ND		10.0	2.19		22-Sep-10 18:24	JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60		22-Sep-10 18:24	JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48		22-Sep-10 18:24	JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86		22-Sep-10 18:24	JAM

63 compound(s) reported

Protocol 9/24/2010 19:25:19

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Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Client: PASI Minnesota

Client ID: BSB-GW-04

Project: 20113968

Project ID: 10138213

Site: None

Lab ID: 20818670

Matrix: Water

% Moisture: n/a

Description: None

Prep Level: Water

Batch: 146615

Method: EPA 8151
8151 Herbs Water

Collected: 15-Sep-10

Received: 17-Sep-10

Prepared: 17-Sep-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis	
94-74-6	MCPA	1	ND		250.	125.		21-Sep-10 22:27	SPP1
7085-19-0	MCPP	1	ND		250.	125.		21-Sep-10 22:27	SPP1

2 compound(s) reported

Protocol 9/24/2010 19:25:19

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MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
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Surrogate Recovery

Batch: 146667 **Project:** 20113968

Method: Water GC/MS Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20819021	082-100914-02-0 MS 1		82	77	47	78	70	75		
20819022	082-100914-02-0 MSD 1		81	77	48	77	70	75		
20819019	146667 BLANK 1		80	82	74	86	85	86		
20819020	146667 LCS 1		82	76	47	79	70	75		
20818668	BSB-GW-02		106	87	66	90	98	86		
20818669	BSB-GW-03		85	79	48	79	69	81		
20818670	BSB-GW-04		105	85	64	83	88	80		
	QC limits:		25-145	34-117	10-118	33-120	15-134	24-133		

Sur 1: 2,4,6-Tribromophenol (S)
Sur 2: 2-Fluorobiphenyl (S)
Sur 3: 2-Fluorophenol (S)
Sur 4: Nitrobenzene-d5 (S)
Sur 5: Phenol-d5 (S)
Sur 6: Terphenyl-d14 (S)

*** denotes surrogate recovery outside of QC limits.**
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.

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Surrogate Recovery

Batch: 146792 **Project:** 20113968

Method: Water GC/MS Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20819451	146792 BLANK 1		92	88	49	87	77	84		
20819452	146792 LCS 1		81	73	48	76	77	75		
20818665	BSB-GW-01		71	94	49	91	79	86		
	QC limits:		25-145	34-117	10-118	33-120	15-134	24-133		

Sur 1: 2,4,6-Tribromophenol (S)
Sur 2: 2-Fluorobiphenyl (S)
Sur 3: 2-Fluorophenol (S)
Sur 4: Nitrobenzene-d5 (S)
Sur 5: Phenol-d5 (S)
Sur 6: Terphenyl-d14 (S)

*** denotes surrogate recovery outside of QC limits.**

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.

Surrogate Recovery

Batch: 146615 **Project:** 20113968

Method: Water GC Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20818792	146615 BLANK 1		48	51						
20818793	146615 LCS 1		84	84						
20818668	BSB-GW-02		62	61						
20818669	BSB-GW-03		75	76						
20818670	BSB-GW-04		96	93						
	QC limits:		10-166	10-166						

Sur 1: 2,4-DCPA (Conf)(S)
Sur 2: 2,4-DCPA (S)

*** denotes surrogate recovery outside of QC limits.**

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.

Quality Control

Batch: 146667
Method: Water GC/MS Semivolatile Organics
Project: 20113968
Units: ug/L
LCS: 20819020 22-Sep-10 13:03
MS: 20819021 22-Sep-10 16:45
MSD: 20819022 22-Sep-10 17:10
Original for MS: Batch Sample 20817252

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
Acenaphthene	50.0	39.2	78	50.0		39.0	39.1	78	78	0	52-110	34-118	20	
Acenaphthylene	50.0	39.2	78	50.0		39.3	39.5	79	79	1	50-110	24-118	20	
Anthracene	50.0	40.8	82	50.0		40.6	40.8	81	82	0	53-110	26-119	20	
Benzo(a)anthracene	50.0	39.2	78	50.0		39.3	39.5	79	79	1	54-110	25-118	20	
Benzo(b)fluoranthene	50.0	39.4	79	50.0		38.2	37.8	77	76	1	47-113	15-131	20	
Benzo(k)fluoranthene	50.0	42.5	85	50.0		41.9	41.4	84	83	1	49-112	15-132	20	
Benzo(g,h,i)perylene	50.0	39.3	79	50.0		41.6	41.4	83	83	1	41-117	10-124	20	
Benzo(a)pyrene	50.0	40.3	81	50.0		40.0	39.7	80	79	1	49-110	16-119	20	
4-Bromophenylphenyl ether	50.0	41.5	83	50.0		41.9	41.2	84	82	2	47-120	28-128	20	
Butylbenzylphthalate	50.0	39.3	79	50.0		39.9	40.0	80	80	0	47-120	25-126	20	
4-Chloro-3-methylphenol	50.0	40.6	81	50.0		41.1	40.6	82	81	1	35-110	10-141	20	
bis(2-Chloroethoxy)methane	50.0	39.2	79	50.0		39.5	39.0	79	78	1	38-110	29-117	20	
bis(2-Chloroethyl) ether	50.0	37.6	75	50.0		37.7	38.0	75	76	1	47-112	30-127	20	
2-Chloronaphthalene	50.0	38.6	77	50.0		38.7	38.5	78	77	1	52-110	38-112	20	
2-Chlorophenol	50.0	34.4	69	50.0		34.8	35.0	70	70	1	43-110	10-126	26	
4-Chlorophenylphenyl ether	50.0	40.7	81	50.0		40.6	40.8	81	82	0	49-114	32-122	20	
Chrysene	50.0	39.8	80	50.0		39.8	40.3	80	81	1	53-110	23-119	20	
Dibenz(a,h)anthracene	50.0	39.9	80	50.0		42.1	41.5	84	83	1	42-120	12-127	20	
1,2-Dichlorobenzene	50.0	33.5	67	50.0		33.8	33.7	68	68	0	45-110	30-110	20	
1,3-Dichlorobenzene	50.0	31.0	62	50.0		31.5	31.6	63	63	0	42-110	30-110	20	
3,3'-Dichlorobenzidine	50.0	41.3	83	50.0		42.8	43.2	86	86	1	21-129	10-130	33	
2,4-Dichlorophenol	50.0	39.0	78	50.0		39.4	38.5	79	77	2	38-110	10-129	22	
Diethylphthalate	50.0	39.3	79	50.0		40.1	40.2	80	80	0	48-118	33-128	20	
2,4-Dimethylphenol	50.0	34.3	69	50.0		34.7	33.8	69	68	2	19-110	10-130	20	
Dimethylphthalate	50.0	39.9	80	50.0		41.0	41.1	82	82	0	50-114	36-124	20	
Di-n-butylphthalate	50.0	39.0	78	50.0		39.7	39.6	79	79	0	50-116	30-124	20	
4,6-Dinitro-2-methylphenol	50.0	35.4	71	50.0		33.0	32.8	66	66	1	34-120	10-156	31	
2,4-Dinitrophenol	50.0	26.1	52	50.0		19.1	18.8	38	38	1	10-133	10-165	33	
2,4-Dinitrotoluene	50.0	38.8	78	50.0		39.2	39.8	79	80	1	47-115	38-122	20	
2,6-Dinitrotoluene	50.0	39.1	78	50.0		40.0	40.0	80	80	0	51-113	39-124	20	
Di-n-octylphthalate	50.0	41.0	82	50.0		40.8	39.7	82	79	3	39-128	10-152	20	
bis(2-Ethylhexyl)phthalate	50.0	38.4	77	50.0		39.3	39.7	79	79	1	45-126	16-132	20	
Fluoranthene	50.0	40.6	81	50.0		40.3	40.5	81	81	0	47-114	27-125	20	
Fluorene	50.0	40.6	81	50.0		40.8	40.7	82	81	0	51-110	33-123	20	
Hexachloro-1,3-butadiene	50.0	32.2	64	50.0		33.2	32.2	66	64	3	32-110	20-110	20	
Hexachlorobenzene	50.0	41.4	83	50.0		41.5	41.1	83	82	1	50-110	26-118	20	
Hexachlorocyclopentadiene	50.0	20.4	41	50.0		20.9	21.4	42	43	2	10-110	10-110	20	
Hexachloroethane	50.0	30.0	60	50.0		30.3	30.6	61	61	1	39-110	24-110	20	
Indeno(1,2,3-cd)pyrene	50.0	39.3	79	50.0		41.4	41.1	83	82	1	43-116	12-123	20	
Isophorone	50.0	40.0	80	50.0		40.4	39.8	81	80	2	39-111	32-118	20	
2-Methylnaphthalene	50.0	38.1	76	50.0		38.4	37.9	77	76	1	40-110	31-110	20	

* denotes recovery outside of QC limits.
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

QC Protocol 9/24/2010 19:25:22

Quality Control

Batch: 146667

Method: Water GC/MS Semivolatile Organics

Project: 20113968

Units: ug/L

LCS: 20819020 22-Sep-10 13:03

MS: 20819021 22-Sep-10 16:45

MSD: 20819022 22-Sep-10 17:10

Original for MS: Batch Sample 20817252

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
2-Methylphenol (o-Cresol)	50.0	38.8	78	50.0		38.3	38.8	77	78	1	47-110	10-132	20	
3&4-Methylphenol	50.0	38.5	77	50.0		38.6	39.4	77	79	2	45-110	10-146	20	
Naphthalene	50.0	36.8	74	50.0		36.9	36.5	74	73	1	36-110	19-117	20	
Nitrobenzene	50.0	40.2	80	50.0		49.8	39.7	100	79	23 *	41-110	13-148	20	
2-Nitrophenol	50.0	38.2	76	50.0		38.9	38.0	78	76	2	36-110	10-136	26	
4-Nitrophenol	50.0	35.3	71	50.0		35.4	36.0	71	72	2	28-128	10-163	27	
N-Nitrosodimethylamine	50.0	42.4	85	50.0		42.2	42.8	85	86	1	40-115	23-124	20	
N-Nitroso-di-n-propylamine	50.0	38.0	76	50.0		38.8	38.7	78	78	0	47-118	32-134	20	
2,2'-Oxybis(1-chloropropane)	50.0	36.6	73	50.0		36.5	36.4	73	73	0	38-120	27-129	20	
Pentachlorophenol	50.0	33.8	68	50.0		31.0	30.5	62	61	2	32-124	10-153	27	
Phenanthrene	50.0	41.9	84	50.0		42.0	41.5	84	83	1	53-110	32-122	20	
Phenol	50.0	34.8	70	50.0		35.1	35.0	70	70	0	42-110	10-141	20	
Pyrene	50.0	41.0	82	50.0		40.9	41.0	82	82	0	46-116	24-123	20	
1,2,4-Trichlorobenzene	50.0	33.7	67	50.0		34.0	33.5	68	67	1	37-110	25-110	20	
2,4,5-Trichlorophenol	50.0	39.1	78	50.0		38.3	37.9	77	76	1	46-110	10-133	25	
2,4,6-Trichlorophenol	50.0	37.1	74	50.0		37.7	37.4	75	75	1	46-110	10-133	27	

57 compound(s) reported

*** denotes recovery outside of QC limits.**
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

QC Protocol 9/24/2010 19:25:22

Quality Control

Batch: 146792 **Project:** 20113968 **LCS:** 20819452 23-Sep-10 12:06

Method: Water GC/MS Semivolatile Organics **MS:**

Units: ug/L **MSD:**

Original for MS:

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
Acenaphthene	50.0	39.8	80								52-110			Q5
Acenaphthylene	50.0	39.2	78								50-110			Q5
Anthracene	50.0	41.5	83								53-110			Q5
Benzo(a)anthracene	50.0	41.3	83								54-110			Q5
Benzo(b)fluoranthene	50.0	38.6	77								47-113			Q5
Benzo(k)fluoranthene	50.0	44.4	89								49-112			Q5
Benzo(g,h,i)perylene	50.0	38.4	77								41-117			Q5
Benzo(a)pyrene	50.0	41.0	82								49-110			Q5
4-Bromophenylphenyl ether	50.0	39.0	78								47-120			Q5
Butylbenzylphthalate	50.0	40.6	81								47-120			Q5
4-Chloro-3-methylphenol	50.0	41.3	83								35-110			Q5
bis(2-Chloroethoxy)methane	50.0	38.0	76								38-110			Q5
bis(2-Chloroethyl) ether	50.0	39.9	80								47-112			Q5
2-Chloronaphthalene	50.0	37.0	74								52-110			Q5
2-Chlorophenol	50.0	35.9	72								43-110			Q5
4-Chlorophenylphenyl ether	50.0	40.3	81								49-114			Q5
Chrysene	50.0	41.3	83								53-110			Q5
Dibenz(a,h)anthracene	50.0	39.5	79								42-120			Q5
1,2-Dichlorobenzene	50.0	34.4	69								45-110			Q5
1,3-Dichlorobenzene	50.0	32.0	64								42-110			Q5
3,3'-Dichlorobenzidine	50.0	51.5	103								21-129			Q5
2,4-Dichlorophenol	50.0	36.8	74								38-110			Q5
Diethylphthalate	50.0	43.9	88								48-118			Q5
2,4-Dimethylphenol	50.0	32.5	65								19-110			Q5
Dimethylphthalate	50.0	42.6	85								50-114			Q5
Di-n-butylphthalate	50.0	41.0	82								50-116			Q5
4,6-Dinitro-2-methylphenol	50.0	38.9	78								34-120			Q5
2,4-Dinitrophenol	50.0	35.2	71								10-133			Q5
2,4-Dinitrotoluene	50.0	44.4	89								47-115			Q5
2,6-Dinitrotoluene	50.0	42.6	85								51-113			Q5
Di-n-octylphthalate	50.0	42.2	84								39-128			Q5
bis(2-Ethylhexyl)phthalate	50.0	40.7	81								45-126			Q5
Fluoranthene	50.0	41.8	84								47-114			Q5
Fluorene	50.0	41.3	83								51-110			Q5
Hexachloro-1,3-butadiene	50.0	27.3	55								32-110			Q5
Hexachlorobenzene	50.0	40.0	80								50-110			Q5
Hexachlorocyclopentadiene	50.0	22.4	45								10-110			Q5
Hexachloroethane	50.0	34.2	68								39-110			Q5
Indeno(1,2,3-cd)pyrene	50.0	39.0	78								43-116			Q5
Isophorone	50.0	39.6	79								39-111			Q5
2-Methylnaphthalene	50.0	35.0	70								40-110			Q5

QC Protocol 9/24/2010 19:25:22

*** denotes recovery outside of QC limits.**
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

Batch: 146792 **Project:** 20113968 **LCS:** 20819452 23-Sep-10 12:06

Method: Water GC/MS Semivolatile Organics **MS:**

Units: ug/L **MSD:**

Original for MS:

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
2-Methylphenol (o-Cresol)	50.0	42.4	85								47-110			Q5
3&4-Methylphenol	50.0	40.6	81								45-110			Q5
Naphthalene	50.0	30.9	62								36-110			Q5
Nitrobenzene	50.0	38.8	78								41-110			Q5
2-Nitrophenol	50.0	34.9	70								36-110			Q5
4-Nitrophenol	50.0	42.8	86								28-128			Q5
N-Nitrosodimethylamine	50.0	29.5	59								40-115			Q5
N-Nitroso-di-n-propylamine	50.0	40.9	82								47-118			Q5
2,2'-Oxybis(1-chloropropane)	50.0	41.0	82								38-120			Q5
Pentachlorophenol	50.0	38.6	77								32-124			Q5
Phenanthrene	50.0	40.2	80								53-110			Q5
Phenol	50.0	37.0	74								42-110			Q5
Pyrene	50.0	41.0	82								46-116			Q5
1,2,4-Trichlorobenzene	50.0	30.2	60								37-110			Q5
2,4,5-Trichlorophenol	50.0	38.5	77								46-110			Q5
2,4,6-Trichlorophenol	50.0	36.8	74								46-110			Q5

57 compound(s) reported

*** denotes recovery outside of QC limits.**
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

Quality Control

Batch: 146615 **Project:** 20113968 **LCS:** 20818793 21-Sep-10 21:18

Method: Water GC Semivolatile Organics **MS:**

Units: ug/L **MSD:**

Original for MS:

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
MCPA	2000	1240	62								10-150			Q5
MCPP	2000	1780	89								17-149			Q5

2 compound(s) reported

* denotes recovery outside of QC limits.
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

QC Protocol 9/24/2010 19:25:22

Blank Results

Blank ID: 146667 BLANK 1 **Project:** 20113968

Lab ID: 20819019

Prep Level: Water **Batch:** 146667

Method: Water GC/MS Semivolatile Organics

Prepared: 20-Sep-10

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Analysis
83-32-9	Acenaphthene	1	ND		10.0	2.75	22-Sep-10 12:39 JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99	22-Sep-10 12:39 JAM
120-12-7	Anthracene	1	ND		10.0	2.81	22-Sep-10 12:39 JAM
92-87-5	Benzidine	1	ND		30.0	30.0	22-Sep-10 12:39 JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91	22-Sep-10 12:39 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56	22-Sep-10 12:39 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60	22-Sep-10 12:39 JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60	22-Sep-10 12:39 JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32	22-Sep-10 12:39 JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79	22-Sep-10 12:39 JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40	22-Sep-10 12:39 JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63	22-Sep-10 12:39 JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44	22-Sep-10 12:39 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62	22-Sep-10 12:39 JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63	22-Sep-10 12:39 JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97	22-Sep-10 12:39 JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93	22-Sep-10 12:39 JAM
218-01-9	Chrysene	1	ND		10.0	2.98	22-Sep-10 12:39 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95	22-Sep-10 12:39 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38	22-Sep-10 12:39 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54	22-Sep-10 12:39 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00	22-Sep-10 12:39 JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68	22-Sep-10 12:39 JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37	22-Sep-10 12:39 JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32	22-Sep-10 12:39 JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45	22-Sep-10 12:39 JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43	22-Sep-10 12:39 JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58	22-Sep-10 12:39 JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41	22-Sep-10 12:39 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52	22-Sep-10 12:39 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10	22-Sep-10 12:39 JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57	22-Sep-10 12:39 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	5.78	J	10.0	4.50	22-Sep-10 12:39 JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75	22-Sep-10 12:39 JAM

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ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Blank Results

Blank ID: 146667 BLANK 1 **Project:** 20113968

Lab ID: 20819019

Prep Level: Water **Batch:** 146667

Method: Water GC/MS Semivolatile Organics

Prepared: 20-Sep-10

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Analysis
86-73-7	Fluorene	1	ND		10.0	3.15	22-Sep-10 12:39 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84	22-Sep-10 12:39 JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26	22-Sep-10 12:39 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750	22-Sep-10 12:39 JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878	22-Sep-10 12:39 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24	22-Sep-10 12:39 JAM
78-59-1	Isophorone	1	ND		10.0	2.79	22-Sep-10 12:39 JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74	22-Sep-10 12:39 JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97	22-Sep-10 12:39 JAM
	3&4-Methylphenol	1	ND		10.0	1.27	22-Sep-10 12:39 JAM
91-20-3	Naphthalene	1	ND		10.0	2.59	22-Sep-10 12:39 JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23	22-Sep-10 12:39 JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23	22-Sep-10 12:39 JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95	22-Sep-10 12:39 JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27	22-Sep-10 12:39 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05	22-Sep-10 12:39 JAM
930-55-2	N-Nitrosopyrrolidine	1	ND		10.0	1.30	22-Sep-10 12:39 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40	22-Sep-10 12:39 JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99	22-Sep-10 12:39 JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11	22-Sep-10 12:39 JAM
108-95-2	Phenol	1	ND		10.0	2.88	22-Sep-10 12:39 JAM
129-00-0	Pyrene	1	ND		10.0	3.11	22-Sep-10 12:39 JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60	22-Sep-10 12:39 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48	22-Sep-10 12:39 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86	22-Sep-10 12:39 JAM

Protocol Blank 9/24/2010 19:25:23

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Blank Results

Blank ID: 146792 BLANK 1

Project: 20113968

Lab ID: 20819451

Prep Level: Water

Batch: 146792

Method: Water GC/MS Semivolatile Organics

Prepared: 21-Sep-10

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Analysis
83-32-9	Acenaphthene	1	ND		10.0	2.75	23-Sep-10 11:41 JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99	23-Sep-10 11:41 JAM
120-12-7	Anthracene	1	ND		10.0	2.81	23-Sep-10 11:41 JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91	23-Sep-10 11:41 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56	23-Sep-10 11:41 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60	23-Sep-10 11:41 JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60	23-Sep-10 11:41 JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32	23-Sep-10 11:41 JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79	23-Sep-10 11:41 JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40	23-Sep-10 11:41 JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63	23-Sep-10 11:41 JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44	23-Sep-10 11:41 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62	23-Sep-10 11:41 JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63	23-Sep-10 11:41 JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97	23-Sep-10 11:41 JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93	23-Sep-10 11:41 JAM
218-01-9	Chrysene	1	ND		10.0	2.98	23-Sep-10 11:41 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95	23-Sep-10 11:41 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38	23-Sep-10 11:41 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54	23-Sep-10 11:41 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00	23-Sep-10 11:41 JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68	23-Sep-10 11:41 JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37	23-Sep-10 11:41 JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32	23-Sep-10 11:41 JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45	23-Sep-10 11:41 JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43	23-Sep-10 11:41 JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58	23-Sep-10 11:41 JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41	23-Sep-10 11:41 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52	23-Sep-10 11:41 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10	23-Sep-10 11:41 JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57	23-Sep-10 11:41 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0	4.50	23-Sep-10 11:41 JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75	23-Sep-10 11:41 JAM
86-73-7	Fluorene	1	ND		10.0	3.15	23-Sep-10 11:41 JAM

Protocol Blank 9/24/2010 19:25:23

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Blank Results

Blank ID: 146792 BLANK 1 **Project:** 20113968

Lab ID: 20819451

Prep Level: Water **Batch:** 146792

Method: Water GC/MS Semivolatile Organics

Prepared: 21-Sep-10

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Analysis
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84	23-Sep-10 11:41 JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26	23-Sep-10 11:41 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750	23-Sep-10 11:41 JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878	23-Sep-10 11:41 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24	23-Sep-10 11:41 JAM
78-59-1	Isophorone	1	ND		10.0	2.79	23-Sep-10 11:41 JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74	23-Sep-10 11:41 JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97	23-Sep-10 11:41 JAM
	3&4-Methylphenol	1	ND		10.0	1.27	23-Sep-10 11:41 JAM
91-20-3	Naphthalene	1	ND		10.0	2.59	23-Sep-10 11:41 JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23	23-Sep-10 11:41 JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23	23-Sep-10 11:41 JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95	23-Sep-10 11:41 JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27	23-Sep-10 11:41 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05	23-Sep-10 11:41 JAM
930-55-2	N-Nitrosopyrrolidine	1	ND		10.0	1.30	23-Sep-10 11:41 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40	23-Sep-10 11:41 JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99	23-Sep-10 11:41 JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11	23-Sep-10 11:41 JAM
108-95-2	Phenol	1	ND		10.0	2.88	23-Sep-10 11:41 JAM
129-00-0	Pyrene	1	ND		10.0	3.11	23-Sep-10 11:41 JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60	23-Sep-10 11:41 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48	23-Sep-10 11:41 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86	23-Sep-10 11:41 JAM

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 146615 BLANK 1

Project: 20113968

Lab ID: 20818792

Prep Level: Water

Batch: 146615

Method: Water GC Semivolatile Organics

Prepared: 17-Sep-10

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Analysis	
94-74-6	MCPA	1	ND		250.	125.	21-Sep-10 20:55	SPP1
7085-19-0	MCPP	1	ND		250.	125.	21-Sep-10 20:55	SPP1

Protocol Blank 9/24/2010 19:25:23

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Definitions/Qualifiers

Project: 20113968

Value	Description
Q5	Insufficient sample was provided to perform matrix spike analyses on any sample in this analytical batch. Method performance for this analyte has been demonstrated by the laboratory control sample recovery.
J	This estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit.
U	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
B	This analyte was detected in the method blank.
E	The sample concentration is above the linear calibrated range of the analysis.
LCS	Laboratory Control Sample.
MS(D)	Matrix Spike (Duplicate).
DUP	Sample Duplicate.
RPD	Relative Percent Difference.

20113968

Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 10138213 **Workorder Name:** 7003 000 Old LF/Clark Tailing **Owner Received Date:** 9/16/2010 **Results Requested By:** 9/29/2010

Report To	Subcontract To
Julie Thieschafer Pace Analytical Services, Inc. 1700 Elm Street, Suite 200 Minneapolis, MN 55414 Phone (612)607-1700 Fax (612)607-6444	Pace Analytical New Orleans 1000 Riverbend Blvd Suite F St. Rose, LA 70087 Phone (504)469-0333

						Preserved Containers						Requested Analysis												
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Unpreserved						8270	8151											LAB USE ONLY
1	BSB-GW-01	PS	9/14/2010 11:53	10138213001	Water	1						X												20818665
2	BSB-GW-02	PS	9/14/2010 13:56	10138213002	Water	3						X	X											8668
3	BSB-GW-03	PS	9/14/2010 13:15	10138213003	Water	3						X	X											8669
4	BSB-GW-04	PS	9/15/2010 10:30	10138213004	Water	3						X	X											8670
5																								

Transfers	Released By	Date/Time	Received By	Date/Time
1		9/16/10 15:45		
2	Fed Ex	9-17-10 1000	J mullen	9-17-10 1000
3				

Comments

8151 - just need MCPA; MCPP reported.

Cooler Temperature on Receipt 2.4 °C Custody Seal [✓ Y] or N Received on Ice [✓ Y] or N Samples Intact [✓ Y] or N

20113968 PASI-MINN

Pace Analytical

Sample Condition Upon Receipt

1000 Riverbend. Blvd., Suite F
St. Rose, LA 70087

Project #: 20

Courier: ☐ Pace Courier ☐ Hackbarth ☑ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact: ☑ Yes ☐ No

Therometer Used: ☑ Therm Fisher IR 1 ☐ Therm Fisher IR 2 ☐ Therm Fisher IR 4

Type of Ice: [✓ Wet] Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9-17-10

Temp must be measured from Temperature blank when present

		Comments:
Temperature Blank Present"?	☑ Yes ☐ No ☐ N/A	1
Chain of Custody Present:	☑ Yes ☐ No ☐ N/A	2
Chain of Custody Complete:	☑ Yes ☐ No ☐ N/A	3
Chain of Custody Relinquished:	☑ Yes ☐ No ☐ N/A	4
Sampler Name & Signature on COC:	☑ Yes ☐ No ☐ N/A	5
Samples Arrived within Hold Time:	☑ Yes ☐ No ☐ N/A	6
Sufficient Volume:	☑ Yes ☐ No ☐ N/A	7
Correct Containers Used:	☑ Yes ☐ No ☐ N/A	8
Filtered vol. Rec. for Diss. tests	☐ Yes ☑ No ☐ N/A	9
Sample Labels match COC:	☑ Yes ☐ No ☐ N/A	10
All containers received within manafacture's precautionary and/or expiration dates.	☑ Yes ☐ No ☐ N/A	11
All containers needing preservation have been checked (except VOA, coliform, & O&G).	☐ Yes ☐ No ☑ N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☑ N/A	13 If No, was preservative added? ☐ Yes ☐ No If added record lot no.: HNO3 ______ H2SO4 ______
Samples checked for dechlorination:	☐ Yes ☐ No ☑ N/A	14
Headspace in VOA Vials (>6mm):	☐ Yes ☐ No ☑ N/A	14
Trip Blank Present:	☐ Yes ☐ No ☑ N/A	16
Trip Blank Custody Seals Present	☐ Yes ☐ No ☑ N/A	17
Pace Trip Blank Lot # (if purchased): N/A		18

Client Notification/ Resolution:

Person Contacted: ______________________ Date/Time: ____________

Comments/ Resolution: ______________________

ALLC003rev.06, 28Jul2010 - mod

Pace Analytical
www.pacelabs.com

1150/1151/1152

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10138213

10138213

Page: 1 of 1

Section A
Required Client Information:
Company: Pioneer Technical
Address: 63 1/2 W. Broadway
Butte, MT 59701
Email To: sbisch@pioneer-techinical.com
Phone:
Fax:
Requested Due Date/TAT:

Section B
Required Project Information:
Report To:
Copy To: Same
Purchase Order No.:
Project Name: Old Landfill/Clark Tailings
Project Number: 7003 000

Section C
Invoice Information: 406-497-6515
Attention: Gary Keeler
Company Name: BSB Public Works Dept
Address: 126 W. Granite
Pace Quote Reference: Butte, MT. 59701
Pace Project Manager: Julie Thieschafer
Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER MDEQ

Site Location STATE: MT

Section D
Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3 / Filt	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	↓Analysis Test↓ Y/N	Cyanide	Nitrate+Nitrite	COD	8270	8151	8260	dissolved Metals						Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	BSB-GW-01			9/14/10	1153				11	X	X	X	X	X					X	X	X	X	X	X	X							10138213001
2	BSB-GW-02				1356				10	X	X		X	X					X	X	X	X	X	X								002
3	BSB-GW-03			↓	1315				10	X	X		X	X					X	X	X	X	X	X								003
4	BSB-GW-04			9/15/10	1030				10	X	X		X	X					X	X	X	X	X	X								004
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Brad Hollamon/PTS	9/15/10	1500	/Pace	9-16-10	0957	0.0°C	y	y	N
							3.8°C			
							5.8°C			
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Brad Hollamon
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days

Sample Condition Upon Receipt

Pace Analytical

Client Name: Pioneer Tech

Project # 10138213

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other ______

Tracking #: ______

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other ______ Temp Blank: Yes X No ______

Thermometer Used 80344042 or [✓ 79425] Type of Ice: [✓ Wet] Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 0.0°c/3.8°c/5.8°c Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 8n 9-16-10

	Yes	No	N/A	Comments:
Chain of Custody Present:	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes	☐ No	☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume:	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used:	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used:	☒ Yes	☐ No	☐ N/A	
Containers Intact:	☐ Yes	☒ No	☐ N/A	10. BSB-GW01 (2) 1L
Filtered volume received for Dissolved tests	☐ Yes	☐ No	☐ N/A	11.
Sample Labels match COC:	☐ Yes	☒ No	☐ N/A	12. 1 container missing label. Process of Elimination = BSB-GW-02 / wrong ID for H2SO4 BSB-GW-02 (BSB-GW-01 on bottle)
-Includes date/time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation have been checked. Noncompliance are noted in 13.	☒ Yes	☐ No	☐ N/A	13. ☒ HNO3 1/1 ☒ H2SO4 4/4 ☒ NaOH 4/4 ☐ HCl Samp # 1-4 of 4
All containers needing preservation are found to be in compliance with EPA recommendation.	☒ Yes	☐ No	☐ N/A	
Exceptions: [✓ VOA], Coliform, TOC, Oil and Grease, WI-DRO (water)	☒ Yes	☐ No		Initial when completed 8n Lot # of added preservative
Samples checked for dechlorination:	☐ Yes	☒ No	☐ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes	☒ No	☐ N/A	15.
Trip Blank Present:	☒ Yes	☐ No	☐ N/A	16. headspace in both vials
Trip Blank Custody Seals Present	☒ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased): 083110-1				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Brad Hollamon Date/Time: 9/16/10

Comments/ Resolution: Let Brad know about 2 broken liters. Because of this we cannot report MCPA; MCPP off the 8151 run for GW-01. Also let him know about mislabel of GW-02 H2SO4 bottle. We also need to run pH, SC, and Chlroide on all samples. Brad said to also run the trip blanks

Project Manager Review: Date: 9/16/10.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR

F-L213Rev.00, 05Aug2009

Pace Analytical Services, Inc.
1700 Elm Street SE, Suite 200, Minneapolis, MN 55414

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

October 04, 2010

Shawn Bisch
PIONEER-MT
307 E. Park Ave
Suite 421
Anaconda, MT 59711

RE: Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

Dear Shawn Bisch:

Enclosed are the analytical results for sample(s) received by the laboratory on September 16, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julie Thieschafer

julie.thieschafer@pacelabs.com
Project Manager

Enclosures

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ACCREDITED IN ACCORDANCE WITH nelac

CERTIFICATIONS

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Idaho Certification #: MN00064
Illinois Certification #: 200011
Iowa Certification #: 368
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT CERT0092
Nebraska Certification #: Pace
Nevada Certification #: MN_00064
New Jersey Certification #: MN-002
New Mexico Certification #: Pace
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
North Dakota Certification #: R-036A
Ohio VAP Certification #: CL101
Oklahoma Certification #: D9921
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Washington Certification #: C754
Wisconsin Certification #: 999407970

SAMPLE SUMMARY

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10138233001	**BSB-GW-05**	Water	09/15/10 14:19	09/16/10 09:57
10138233002	**BSB-GW-06**	Water	09/15/10 13:21	09/16/10 09:57

SAMPLE ANALYTE COUNT

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10138233001	**BSB-GW-05**	EPA 200.8	RJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
		ASTM D516-02	KEO	1	PASI-M
		SM 4500-Cl E	KEO	1	PASI-M
10138233002	**BSB-GW-06**	EPA 200.8	RJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
		ASTM D516-02	KEO	1	PASI-M
		SM 4500-Cl E	KEO	1	PASI-M

PROJECT NARRATIVE

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

Method: **EPA 200.8**
Description: 200.8 MET ICPMS, Dissolved
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
2 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

B: Analyte was detected in the associated method blank.
- BSB-GW-05 (Lab ID: 10138233001)
- BSB-GW-06 (Lab ID: 10138233002)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/22369

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10138195005,10138233002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 854619)
  - Silver, Dissolved
- MSD (Lab ID: 854620)
  - Silver, Dissolved

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

Method: **EPA 245.1**
Description: 245.1 Mercury, Dissolved
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
2 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

B: Analyte was detected in the associated method blank.
- BSB-GW-05 (Lab ID: 10138233001)
- BSB-GW-06 (Lab ID: 10138233002)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

Method: **EPA 120.1**
Description: 120.1 Specific Conductance
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
2 samples were analyzed for EPA 120.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
2 samples were analyzed for SM 4500-H+B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated more than 15 minutes after sample collection.
- BSB-GW-05 (Lab ID: 10138233001)
- BSB-GW-06 (Lab ID: 10138233002)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

Method: **ASTM D516-02**
Description: ASTM D516-90 Sulfate Water
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
2 samples were analyzed for ASTM D516-02. All samples were received in acceptable condition with any exceptions noted below.

B: Analyte was detected in the associated method blank.
- BSB-GW-05 (Lab ID: 10138233001)
- BSB-GW-06 (Lab ID: 10138233002)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/9621

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10138213001,10138294001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 856126)
  - Sulfate
- MSD (Lab ID: 856127)
  - Sulfate

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
- MS (Lab ID: 856128)
  - Sulfate
- MSD (Lab ID: 856129)
  - Sulfate

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project:	BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.:	10138233

Method: **SM 4500-Cl E**
Description: SM4500Cl-E Chloride
Client: BPAR-PIONEER-MT
Date: October 04, 2010

General Information:
2 samples were analyzed for SM 4500-Cl E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

ANALYTICAL RESULTS

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

Sample: BSB-GW-05 CLK-1 **Lab ID: 10138233001** Collected: 09/15/10 14:19 Received: 09/16/10 09:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Antimony, Dissolved	ND	mg/L	0.00050	0.00016	1	09/24/10 18:37	10/01/10 02:42	7440-36-0	
Arsenic, Dissolved	**0.12**	mg/L	0.00050	0.000062	1	09/24/10 18:37	10/01/10 02:42	7440-38-2	
Barium, Dissolved	**0.024**	mg/L	0.00030	0.000043	1	09/24/10 18:37	10/01/10 02:42	7440-39-3	
Beryllium, Dissolved	**0.00043**	mg/L	0.00020	0.000069	1	09/24/10 18:37	10/01/10 02:42	7440-41-7	
Cadmium, Dissolved	**0.016**	mg/L	0.000080	0.000020	1	09/24/10 18:37	10/01/10 02:42	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.00050	0.00024	1	09/24/10 18:37	10/01/10 02:42	7440-47-3	
Cobalt, Dissolved	**0.054**	mg/L	0.00050	0.00022	1	09/24/10 18:37	10/01/10 02:42	7440-48-4	
Copper, Dissolved	**0.0017**	mg/L	0.00050	0.00020	1	09/24/10 18:37	10/01/10 02:42	7440-50-8	B
Iron, Dissolved	**17.1**	mg/L	0.050	0.0045	1	09/24/10 18:37	10/01/10 02:42	7439-89-6	
Lead, Dissolved	**0.00026**	mg/L	0.00010	0.000020	1	09/24/10 18:37	10/01/10 02:42	7439-92-1	B
Nickel, Dissolved	**0.042**	mg/L	0.00050	0.00019	1	09/24/10 18:37	10/01/10 02:42	7440-02-0	
Selenium, Dissolved	ND	mg/L	0.00050	0.00010	1	09/24/10 18:37	10/01/10 02:42	7782-49-2	
Silver, Dissolved	ND	mg/L	0.00050	0.000071	1	09/24/10 18:37	10/01/10 02:42	7440-22-4	
Thallium, Dissolved	ND	mg/L	0.00010	0.000050	1	09/24/10 18:37	10/01/10 02:42	7440-28-0	
Vanadium, Dissolved	**0.00056**	mg/L	0.00010	0.000050	1	09/24/10 18:37	10/01/10 02:42	7440-62-2	
Zinc, Dissolved	**71.2**	mg/L	1.2	0.32	250	09/24/10 18:37	10/01/10 02:51	7440-66-6	
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	**0.000038J**	mg/L	0.00020	0.000021	1	09/28/10 16:20	09/29/10 14:33	7439-97-6	B
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**2010**	umhos/cm	1.0	0.50	1		09/20/10 17:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.2**	Std. Units	0.10		1		09/20/10 16:30		H6
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**1100**	mg/L	125	23.5	50		09/20/10 10:50	14808-79-8	B
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**37.7**	mg/L	2.0	0.30	1		09/21/10 08:58	16887-00-6	

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ANALYTICAL RESULTS

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

Sample: BSB-GW-06 CLK-2 **Lab ID: 10138233002** Collected: 09/15/10 13:21 Received: 09/16/10 09:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Antimony, Dissolved	ND	mg/L	0.00050	0.00016	1	09/24/10 18:37	10/01/10 03:35	7440-36-0	
Arsenic, Dissolved	**0.00096**	mg/L	0.00050	0.000062	1	09/24/10 18:37	10/01/10 03:35	7440-38-2	
Barium, Dissolved	**0.018**	mg/L	0.00030	0.000043	1	09/24/10 18:37	10/01/10 03:35	7440-39-3	
Beryllium, Dissolved	ND	mg/L	0.00020	0.000069	1	09/24/10 18:37	10/01/10 03:35	7440-41-7	
Cadmium, Dissolved	**0.0011**	mg/L	0.000080	0.000020	1	09/24/10 18:37	10/01/10 03:35	7440-43-9	
Chromium, Dissolved	**0.00042J**	mg/L	0.00050	0.00024	1	09/24/10 18:37	10/01/10 03:35	7440-47-3	
Cobalt, Dissolved	**0.00033J**	mg/L	0.00050	0.00022	1	09/24/10 18:37	10/01/10 03:35	7440-48-4	
Copper, Dissolved	**0.0063**	mg/L	0.00050	0.00020	1	09/24/10 18:37	10/01/10 03:35	7440-50-8	B
Iron, Dissolved	**0.0045J**	mg/L	0.050	0.0045	1	09/24/10 18:37	10/01/10 03:35	7439-89-6	
Lead, Dissolved	**0.00048**	mg/L	0.00010	0.000020	1	09/24/10 18:37	10/01/10 03:35	7439-92-1	B
Nickel, Dissolved	**0.035**	mg/L	0.00050	0.00019	1	09/24/10 18:37	10/01/10 03:35	7440-02-0	
Selenium, Dissolved	ND	mg/L	0.00050	0.00010	1	09/24/10 18:37	10/01/10 03:35	7782-49-2	
Silver, Dissolved	ND	mg/L	0.00050	0.000071	1	09/24/10 18:37	10/01/10 03:35	7440-22-4	M1
Thallium, Dissolved	ND	mg/L	0.00010	0.000050	1	09/24/10 18:37	10/01/10 03:35	7440-28-0	
Vanadium, Dissolved	**0.0025**	mg/L	0.00010	0.000050	1	09/24/10 18:37	10/01/10 03:35	7440-62-2	
Zinc, Dissolved	**0.63**	mg/L	0.025	0.0064	5	09/24/10 18:37	10/01/10 03:49	7440-66-6	
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	**0.000056J**	mg/L	0.00020	0.000021	1	09/28/10 16:20	09/29/10 14:34	7439-97-6	B
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**1680**	umhos/cm	1.0	0.50	1		09/20/10 17:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.4**	Std. Units	0.10		1		09/20/10 16:30		H6
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**679**	mg/L	125	23.5	50		09/20/10 10:50	14808-79-8	B
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**77.5**	mg/L	4.0	0.60	2		09/21/10 09:10	16887-00-6	

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QUALITY CONTROL DATA

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

QC Batch: MPRP/22369
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET Dissolved
Associated Lab Samples: 10138233001, 10138233002

METHOD BLANK: 854616
Matrix: Water
Associated Lab Samples: 10138233001, 10138233002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Arsenic, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Barium, Dissolved	mg/L	ND	0.00030	10/01/10 12:22	
Beryllium, Dissolved	mg/L	ND	0.00020	10/01/10 12:22	
Cadmium, Dissolved	mg/L	ND	0.000080	10/01/10 12:22	
Chromium, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Cobalt, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Copper, Dissolved	mg/L	0.00033J	0.00050	10/01/10 12:22	
Iron, Dissolved	mg/L	ND	0.050	10/01/10 12:22	
Lead, Dissolved	mg/L	0.000025J	0.00010	10/01/10 12:22	
Nickel, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Selenium, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Silver, Dissolved	mg/L	ND	0.00050	10/01/10 12:22	
Thallium, Dissolved	mg/L	ND	0.00010	10/01/10 12:22	
Vanadium, Dissolved	mg/L	ND	0.00010	10/01/10 12:22	
Zinc, Dissolved	mg/L	ND	0.0050	10/01/10 12:22	

LABORATORY CONTROL SAMPLE: 854617

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	.08	0.084	104	85-115	
Arsenic, Dissolved	mg/L	.08	0.080	101	85-115	
Barium, Dissolved	mg/L	.08	0.082	103	85-115	
Beryllium, Dissolved	mg/L	.08	0.086	108	85-115	
Cadmium, Dissolved	mg/L	.08	0.081	102	85-115	
Chromium, Dissolved	mg/L	.08	0.083	103	85-115	
Cobalt, Dissolved	mg/L	.08	0.080	100	85-115	
Copper, Dissolved	mg/L	.08	0.081	101	85-115	
Iron, Dissolved	mg/L	1	1.0	104	85-115	
Lead, Dissolved	mg/L	.08	0.086	107	85-115	
Nickel, Dissolved	mg/L	.08	0.081	101	85-115	
Selenium, Dissolved	mg/L	.08	0.080	100	85-115	
Silver, Dissolved	mg/L	.08	0.084	105	85-115	
Thallium, Dissolved	mg/L	.08	0.086	108	85-115	
Vanadium, Dissolved	mg/L	.08	0.081	102	85-115	
Zinc, Dissolved	mg/L	.08	0.085	106	85-115	

QUALITY CONTROL DATA

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

MATRIX SPIKE SAMPLE: 854618

Parameter	Units	10138195005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	ND	.08	0.084	105	70-130	
Arsenic, Dissolved	mg/L	2.9 ug/L	.08	0.084	102	70-130	
Barium, Dissolved	mg/L	12.6 ug/L	.08	0.097	105	70-130	
Beryllium, Dissolved	mg/L	ND	.08	0.093	116	70-130	
Cadmium, Dissolved	mg/L	0.84 ug/L	.08	0.082	102	70-130	
Chromium, Dissolved	mg/L	ND	.08	0.083	103	70-130	
Cobalt, Dissolved	mg/L	ND	.08	0.080	100	70-130	
Copper, Dissolved	mg/L	0.55 ug/L	.08	0.082	101	70-130	
Iron, Dissolved	mg/L	ND	1	1.1	104	70-130	
Lead, Dissolved	mg/L	ND	.08	0.088	110	70-130	
Nickel, Dissolved	mg/L	ND	.08	0.081	101	70-130	
Selenium, Dissolved	mg/L	ND	.08	0.082	103	70-130	
Silver, Dissolved	mg/L	ND	.08	0.079	99	70-130	
Thallium, Dissolved	mg/L	ND	.08	0.089	111	70-130	
Vanadium, Dissolved	mg/L	0.20 ug/L	.08	0.081	101	70-130	
Zinc, Dissolved	mg/L	78.9 ug/L	.08	0.16	105	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 854619 854620

Parameter	Units	10138233002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony, Dissolved	mg/L	ND	.08	.08	0.089	0.093	111	116	70-130	4	20	
Arsenic, Dissolved	mg/L	0.00096	.08	.08	0.087	0.090	108	112	70-130	3	20	
Barium, Dissolved	mg/L	0.018	.08	.08	0.11	0.11	111	114	70-130	3	20	
Beryllium, Dissolved	mg/L	ND	.08	.08	0.094	0.098	118	122	70-130	4	20	
Cadmium, Dissolved	mg/L	0.0011	.08	.08	0.088	0.090	108	111	70-130	3	20	
Chromium, Dissolved	mg/L	0.00042 J	.08	.08	0.086	0.088	107	110	70-130	3	20	
Cobalt, Dissolved	mg/L	0.00033 J	.08	.08	0.086	0.088	107	110	70-130	2	20	
Copper, Dissolved	mg/L	0.0063	.08	.08	0.090	0.093	105	108	70-130	3	20	
Iron, Dissolved	mg/L	0.0045J	1	1	1.1	1.1	107	112	70-130	5	20	
Lead, Dissolved	mg/L	0.00048	.08	.08	0.091	0.095	114	118	70-130	4	20	
Nickel, Dissolved	mg/L	0.035	.08	.08	0.12	0.12	106	111	70-130	3	20	
Selenium, Dissolved	mg/L	ND	.08	.08	0.087	0.088	109	111	70-130	2	20	
Silver, Dissolved	mg/L	ND	.08	.08	0.013	0.018	16	23	70-130	37	20	D6,M1
Thallium, Dissolved	mg/L	ND	.08	.08	0.092	0.096	116	120	70-130	4	20	
Vanadium, Dissolved	mg/L	0.0025	.08	.08	0.088	0.090	107	109	70-130	2	20	
Zinc, Dissolved	mg/L	0.63	.08	.08	0.70	0.72	81	118	70-130	4	20	

QUALITY CONTROL DATA

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

QC Batch: MERP/4837
Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1
Analysis Description: 245.1 Mercury - Dissolved
Associated Lab Samples: 10138233001, 10138233002

METHOD BLANK: 860634
Matrix: Water
Associated Lab Samples: 10138233001, 10138233002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	0.000037J	0.00020	09/29/10 14:23	

LABORATORY CONTROL SAMPLE: 860635

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	.005	0.0051	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 860636 860637

Parameter	Units	10138213001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	mg/L	0.000058J	.005	.005	0.0049	0.0049	97	96	85-115	1	20	

MATRIX SPIKE SAMPLE: 860638

Parameter	Units	10138386002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	ND	.005	0.0051	101	85-115	

QUALITY CONTROL DATA

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

QC Batch: WET/20188
QC Batch Method: EPA 120.1
Analysis Method: EPA 120.1
Analysis Description: 120.1 Specific Conductance
Associated Lab Samples: 10138233001, 10138233002

METHOD BLANK: 856152
Matrix: Water
Associated Lab Samples: 10138233001, 10138233002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	0.72J	1.0	09/20/10 17:05	

LABORATORY CONTROL SAMPLE: 856153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	989	99	90-110	

SAMPLE DUPLICATE: 856154

Parameter	Units	10138213001 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	839	842	.4	20	

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QUALITY CONTROL DATA

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

QC Batch: WET/20187 Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH
Associated Lab Samples: 10138233001, 10138233002

LABORATORY CONTROL SAMPLE: 856151

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	5	5.1	102	98-102	H6

SAMPLE DUPLICATE: 856149

Parameter	Units	10138230001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	9.2	9.2	0	3	H6

SAMPLE DUPLICATE: 856150

Parameter	Units	10138253001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	3	H6

QUALITY CONTROL DATA

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

QC Batch: WETA/9621
Analysis Method: ASTM D516-02
QC Batch Method: ASTM D516-02
Analysis Description: ASTM D516-9002 Sulfate Water
Associated Lab Samples: 10138233001, 10138233002

METHOD BLANK: 856124
Matrix: Water
Associated Lab Samples: 10138233001, 10138233002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	0.84J	2.5	09/20/10 10:12	

LABORATORY CONTROL SAMPLE: 856125

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7.5	7.5	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 856126 856127

Parameter	Units	10138294001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	80.6	20	20	95.8	94.8	76	71	80-120	1	30	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 856128 856129

Parameter	Units	10138213001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	148	20	20	174	175	128	132	80-120	.6	30	M6

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QUALITY CONTROL DATA

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

QC Batch: WETA/9622
QC Batch Method: SM 4500-Cl E
Analysis Method: SM 4500-Cl E
Analysis Description: SM4500Cl-E Chloride
Associated Lab Samples: 10138233001, 10138233002

METHOD BLANK: 856132
Matrix: Water
Associated Lab Samples: 10138233001, 10138233002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	2.0	09/21/10 08:49	

LABORATORY CONTROL SAMPLE: 856133

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	30	31.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 856134 856135

Parameter	Units	10138294002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	16.3	30	30	51.2	51.9	116	119	80-120	1	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 856136 856137

Parameter	Units	10138006002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	49400 ug/L	150	150	204	205	103	104	80-120	.2	30	

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QUALIFIERS

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
H6	Analysis initiated more than 15 minutes after sample collection.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10138233

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10138233001	**BSB-GW-05**	EPA 200.8	MPRP/22369	EPA 200.8	ICPM/9178
10138233002	**BSB-GW-06**	EPA 200.8	MPRP/22369	EPA 200.8	ICPM/9178
10138233001	**BSB-GW-05**	EPA 245.1	MERP/4837	EPA 245.1	MERC/5669
10138233002	**BSB-GW-06**	EPA 245.1	MERP/4837	EPA 245.1	MERC/5669
10138233001	**BSB-GW-05**	EPA 120.1	WET/20188		
10138233002	**BSB-GW-06**	EPA 120.1	WET/20188		
10138233001	**BSB-GW-05**	SM 4500-H+B	WET/20187		
10138233002	**BSB-GW-06**	SM 4500-H+B	WET/20187		
10138233001	**BSB-GW-05**	ASTM D516-02	WETA/9621		
10138233002	**BSB-GW-06**	ASTM D516-02	WETA/9621		
10138233001	**BSB-GW-05**	SM 4500-Cl E	WETA/9622		
10138233002	**BSB-GW-06**	SM 4500-Cl E	WETA/9622		

1128

10138233

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

Page 1 of 1

BP/ARC Project Name: Old Landfill Clark Tailings
BP/ARC Facility No:
Req Due Date (mm/dd/yy):
Rush TAT: Yes No X
Lab Work Order Number: 10138233

Lab Name: Pace Analytical Services	BP/ARC Facility Address:		Consultant/Contractor: Pioneer Technical
Lab Address: 1700 Elm Street	City, State, ZIP Code:		Consultant/Contractor Project No:
Lab PM: Julie Thieschafer	Lead Regulatory Agency:		Address: 63 1/3 W. Boradway Butte, MT 59701
Lab Phone: 612-607-6363	California Global ID No.:		Consultant/Contractor PM: Shawn Bisch
Lab Shipping Accnt:	Enfos Proposal No:		Phone:
Lab Bottle Order No:	Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___		Email EDD To:
Other Info:	Stage:	Activity:	Invoice To: BP/ARC x Contractor ___
BP/ARC EBM:			
EBM Phone:			
EBM Email:			

Report Type & QC Level
Standard ___
Full Data Package ___

				Matrix				No. Containers / Preservative							Requested Analyses										
Lab No.	Sample Description	Date	Time	Soil / Solid	Water / Liquid	Air / Vapor		Total Number of Containers	Unpreserved	H_2SO_4	HNO_3 1 Filt	HCl	Methanol		pH, Conductivity, Chloride, SO4	Dissolved Metals									Comments Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.
	BSB-GW-05	9/15/10	1419		X			2	X		X				X	X									10138233001/
	BSB-GW-06	↓	13:21		X			2	X		X				X	X									002

22 of 24

Sampler's Name: Brad Hollamon	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: Pioneer Techinical	Brad Hollamon / PTS	9/15/10	1500	Shawn [illegible] / Pace	9-16-10	0957
Shipment Method: Fed Ex Ship Date: 9/15/10						
Shipment Tracking No:						

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: [✓ Yes] No | Temp Blank: [✓ Yes] / No | Cooler Temp on Receipt: 0.0 °F/[✓ C] | Trip Blank: Yes / [✓ No] | MS/MSD Sample Submitted: Yes [✓ No]

Sample Condition Upon Receipt - ESI Tech Specs

Pace Analytical®

Client Name: BP **Project #** 10138233

Option:
Proj Due Date:
Proj Name:

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other ________

Tracking #: 873515040821

Custody Seal on Cooler/Box Present: ☒ yes ☐ no **Seals intact:** ☒ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other ________ **Temp. Blank** Yes X No ____

Thermometer Used 80344042 or [✓ 179425] **Type of Ice:** [✓ Wet] Blue None ☐ **Samples on ice, cooling process has begun**

Cooler Temperature 0.0°c **Biological Tissue is Frozen:** Yes No

Temp should be above freezing ≤ 6°C

Date and initials of person examining contents: 8D 9-16-10

Comments:

Chain of Custody Present:	☒Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☒Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☒No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☒No	☐N/A	7.
Sufficient Volume: triple volume provided for MS/MSD	☐Yes	☒No	☐N/A	8.
Correct Containers Used:	☒Yes	☐No	☐N/A	9.
-Pace Containers Used:	☒Yes	☐No	☐N/A	
Containers Intact:	☒Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☒Yes	☐No	☐N/A	11.
Sample Labels match COC:	☒Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation have been checked.	☒Yes	☐No	☐N/A	13. ☒ HNO3 4/4 ☐ H2SO4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	☒Yes	☐No	☐N/A	Samp # 1-2 of 2
Per method, VOA pH is checked after analysis				Initial when completed 8D Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	15.
3 Trip Blanks Present:	☐Yes	☒No	☐N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased):________				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: ____________________ Date/Time: ____________

Comments/ Resolution:

Temp Log: Temp must be maintained at <6 C during login, record temp every 20 mins
Opened time: 1106 Temp: 0.0°c
Time: 1110 put in cooler
Time: Temp:

Project Manager Review: ____________________ **Date:** 9/16/10

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR

Form L210Rev.02, 17Jun2008

Minnesota Laboratory

Spike Vol. #1: .1 ML #2: .1 ML #3: N/A #4: N/A

Page Number: 17112

Friday, September 24, 2010

Hydrogen Peroxide: N/A Nitric: 1110040 Hydrochloric: N/A

Temp: 96.0 C

Hot Block ID: 3

Digestion Tube Lot #: 1005282

Analyst	Sample ID	Client	Sample Type	QC Batch	Initial Wt./Vol (g or ml)	Final Vol. (ml)	Project No.	Comments	Method	Prep Date
LSB	10138195001		PS	22369	25	25	10138195		2008 WD_P	9/24/2010
LSB	10138195002		PS	22369	25	25	10138195		2008 WD_P	9/24/2010
LSB	10138195003		PS	22369	25	25	10138195		2008 WD_P	9/24/2010
LSB	10138195004		PS	22369	25	25	10138195		2008 WD_P	9/24/2010
LSB	10138195005		PS	22369	25	25	10138195		2008 WD_P	9/24/2010
LSB	10138195006		PS	22369	25	25	10138195		2008 WD_P	9/24/2010
LSB	10138195007		PS	22369	25	25	10138195		2008 WD_P	9/24/2010
LSB	10138195008		PS	22369	25	25	10138195		2008 WD_P	9/24/2010
LSB	10138195009		PS	22369	25	25	10138195		2008 WD_P	9/24/2010
LSB	10138195010		PS	22369	25	25	10138195		2008 WD_P	9/24/2010
LSB	10138195011		PS	22369	25	25	10138195		2008 WD_P	9/24/2010
LSB	10138195012		PS	22369	25	25	10138195		2008 WD_P	9/24/2010
LSB	10138213001	BPAR-PIONEER-MT	PS	22369	25	25	10138213		2008 WD_P	9/24/2010
LSB	10138233001	BPAR-PIONEER-MT	PS	22369	25	25	10138233		2008 WD_P	9/24/2010
LSB	10138233002	BPAR-PIONEER-MT	PS	22369	25	25	10138233		2008 WD_P	9/24/2010
LSB	854616	Quality Control	BLANK	22369	25	25			2008 WD_P	9/24/2010
LSB	854617	Quality Control	LCS	22369	25	25			2008 WD_P	9/24/2010
LSB	854618	Quality Control	MS	22369	25	25			2008 WD_P	9/24/2010
LSB	854619	Quality Control	MS	22369	25	25			2008 WD_P	9/24/2010
LSB	854620	Quality Control	MSD	22369	25	25			2008 WD_P	9/24/2010

Form I178Rev.00, 25Apr2007

Peer Review ____________

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One box must be checked.

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☐ Yes Shipper's Declaration not required.
☐ Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg
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Company Pioneer Technical Services

Address 63 1/2 W. Broadway

Dept./Floor/Suite/Room

City Butte State MT ZIP 59701

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☐ Yes Shipper's Declaration not required.
☐ Dry Ice Dry Ice, 9, UN 1845 ______ x ______ kg

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Third business day.** Saturday Delivery NOT available.

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Does this shipment contain dangerous goods?

One box must be checked.

☐ No ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg

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Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below.

☐ Sender Acct. No. in Section 1 will be billed. ☒ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

FedEx Acct. No. / Credit Card No. 1797-5692-7 Exp. Date

Total Packages 1

Total Weight 56 lbs.

Total Declared Value† $ ____ .00

605

†Our liability is limited to $100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

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PULL AND RETAIN THIS COPY BEFORE AFFIXING TO THE PACKAGE. NO POUCH NEEDED.

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A
Required Client Information:

Company:	Pioneer Technical
Address:	63 1/2 W. Broadway Butte, MT 59701
Email To:	sbisch@pioneer-techinical.com
Phone:	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	
Copy To:	Same
Purchase Order No.:	
Project Name:	Old Landfill/Clark Tailings
Project Number:	7003 000

Section C
Invoice Information: 406-497-6515

Attention:	Gary Keeler
Company Name:	BSB Public Works Dept
Address:	126 W. Granite
Pace Quote Reference:	Butte, MT 59701
Pace Project Manager:	Julie Thieschafer
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER MDEQ

Site Location STATE: Mt

Section D
Required Client Information:

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3 Filt	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	⬇Analysis Test⬇ Y/N	Cyanide	Nitrate+Nitrite	COD	8270	8151	8260	Dissolved Metals	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	BSB-GW-01			9/14/10	1153				11	Y	Y	Y	Y	Y					Y	Y	Y	Y	Y	Y	Y		
2	BSB-GW-02			↓	1356				10	X	Y		Y	Y					X	Y	Y	Y	X	Y			
3	BSB-GW-03			↓	1315				10	Y	Y		Y	Y					Y	X	X	Y	Y	Y			
4	BSB-GW-04			9/15/10	1030				10	Y	Y		Y	Y					Y	Y	Y	Y	Y	Y			
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Brad Hollam PTS	9/15/10	1500				

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brad Hollamon

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY):

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

Page 1 of 1

BP/ARC Project Name: Old Landfill Clark Tailings
BP/ARC Facility No:
Req Due Date (mm/dd/yy):
Rush TAT: Yes ___ No X
Lab Work Order Number:

Lab Name: Pace Analytical Services	BP/ARC Facility Address:	Consultant/Contractor: Pioneer Technical
Lab Address: 1700 Elm Street	City, State, ZIP Code:	Consultant/Contractor Project No:
Lab PM: Julie Thieschafer	Lead Regulatory Agency:	Address: 63 1/3 W. Boradway Butte, MT 59701
Lab Phone: 612-607-6363	California Global ID No.:	Consultant/Contractor PM: Shawn Bisch
Lab Shipping Accnt:	Enfos Proposal No:	Phone:
Lab Bottle Order No:	Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___	Email EDD To:
Other Info:	Stage: Activity:	Invoice To: BP/ARC x Contractor ___
BP/ARC EBM:		
EBM Phone:		
EBM Email:		

Report Type & QC Level
Standard ___
Full Data Package ___

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Matrix:	No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3 Filt	HCl	Methanol		Requested Analyses: pH, Conductivity, Chloride, SO4	Dissolved Metals									Comments Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.
	BSB-GW-05	9/15/10	1419		X			2	X		X				X	X									
	BSB-GW-06	↓	13:21		X			2	X		X				X	X									

Sampler's Name: Brad Hollamon
Sampler's Company: Pioneer Techinical
Shipment Method: Fed Ex Ship Date: 9/15/10
Shipment Tracking No:

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Brad Hallamon / PTS	9/15/10	1500			

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: ___ °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Pace Analytical

BOTTLE ORDER # 42167

9/1/2010 1:27:34 PM

Pace Analytical Services, Inc.
1700 Elm Street
Ste 200
Minneapolis,MN 55414
(612) 607-1700

Contact: Brad Hollamon
Company: Pioneer Technical Services
Address: 63 1/2 West Broadway
City, St, Zip: Butte ,MT, 59701
Phone: (406) 490-7678 *Ext.*
Initiator: Julie Thieschafer *PM:* JMT

Ship To:
Contact: Brad Hollamon
Company: Pioneer Technical Services
Address: 63 1/2 West Broadway
City, St, Zip: Butte , MT , 59701
Phone: (406) 490-7678 *Ext.*

Return To:
Contact:
Lab Name: PACE - MN
Address: 1700 Elm Street
Ste 200
City, St, Zip: Minneapolis ,MN , 55414
Phone: (612) 607-1700 *Ext.*

Proj. Description: Old Landfill/Clark Tailings *Quote Number:* *Profile Number:*
Needs Bottles by: 09/10/2010 - PM *Expected Date Ret:* *Shipping Method:* FedEx

Return Shipping Labels
No Shipper #
✓ *With Shipper #*

COC's
Blank #
✓ *Preprinted*

Bottle Labels
☐ *Blank*
☐ *Pre-Printed - With Sample IDs*
✓ *Pre-Printed - No Sample IDs*

Bottles
Boxed Cases
✓ *Individually Wrapped*
Grouped By Sample ID / Matrix

Trip Blank ☑

Misc
Sampling Instructions
✓ *Custody Seal*
✓ *Temp. Blanks*
✓ *Coolers:*
☐ *Extra Bubble Wrap*
☐ *10 mL Cut-Off Syringes*
☐ *Short Hold / Rush Stickers*
☐ *DI Water* 0 *Liter(s)*

Qty	*Total*	*Matrix*	*Method*	*BottleType*	*LotNumber*	*Note*
1	1	Water	Dissolved Metals by 200.8	250mL plastic HNO3		
4	4	Water	pH, SC, Chloride, Sulfate	1 L plastic unpres.		
4	4	Water	Cyanide, total by SM 4500 CNC	250mL plastic NaOH		
4	4	Water	Nitrate+Nitrite and COD	250mL plastic H2SO4		
4	8	Water	SVOC by 8270	2-1L amber glass unpres.		subbed to NOLA
4	8	Water	Herbicides by 8151	2-1L amber glass unpres.		subbed to Midwest Labs
4	12	Water	VOC by 8260	3-40ml clear vial HCl		

Notes: water trip blanks (2)

Hazard Shipping Placard In Place : YES

*Sample receiving hours are Monday through Friday 8:00 am to 6:00 pm and Saturday from 9:00 am to 12:00 pm unless special arrangements are made with you project manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage and disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to insure proper billing.

Shipped Date: 9/8/10
Shipped By:
Verified By:

PIONEER
TECHNICAL SERVICES, INC.

Closed

County Silver Bow #20
Facility & # Butte-Silver Bow
Closure
Finan Assur
GW Corr Meas
[✓ GW Monitoring]
GW Reports
Inspections
Other: ______
Landfarm
Liner
Methane
O & M
Run-on

JUN 30 2010
Dept. [illegible] Quality
Waste & Underground
Tank Management Bureau

June 28, 2010

Mr. Martin Van Oort
Montana DEQ/Solid Waste Program
P.O. Box 200901
Helena, MT 59620-0901

RE: Old Butte-Silver Bow County Landfill/Clark Tailings

Dear Martin:

Enclosed please find results from the Old Butte-Silver Bow County Landfill/Clark Tailings April 2010 semi-annual groundwater monitoring event. The following have been included for your information:

- April 2010 sampling summary;
- Table 1 analytical data summary;
- Table oldlfctapr10 (non-parametric comparison of wells);
- Groundwater field parameters collected in the field;
- Copy of field notes;
- Trend graphs of detected compounds;
- Groundwater potentiometric surface map for April 2010 ; and
- Analytical data from Pace Laboratories in Minneapolis, Minnesota.

The calculated Confidence Level of 97.1 % was found using the formula n/(n+k), where n is the total number of background samples collected (34) and k (1) is the number of future sampling events. (Section 4.2.1, Non-Parametric Prediction Intervals, Pages 61-63 and Table A-7, Appendix A. Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities. Addendum to Interim Final Guidance. Office of Solid Waste Permits and State Programs Division, U.S. EPA, July 1992).

The groundwater velocity was calculated using Darcy's Law. The average groundwater velocity for April 2010 sampling event was 0.39 feet per day (ft/day). The hydraulic conductivity value used to obtain the groundwater velocity was obtained from the Corrective Measures Assessment Report (Pioneer, April 2009) and from pumping data from the March 2009 sampling.

Voluntary methane monitoring of the interior of the site buildings, vents and monitoring wells was also completed during the April 2010 sampling event and was sent to DEQ in a separate report.

Sincerely,

Brad Hollamon

Brad Hollamon
Senior Technician

Encl.
cc. Gary Keeler, BSB Landfill Manager
Shawn Bisch, Pioneer Technical Services Inc.

HELENA
201 East Broadway, Suite C
Helena, MT 59601
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Fax (406) 442-1158

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ANACONDA
307 East Park Street, Suite 421
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PIONEER
TECHNICAL SERVICES, INC.

P.O Box 3445, Butte, MT 59702
www.pioneer-technical.com

RECEIVED
JUN 30 2010
Dept. [illegible] Quality
Waste & Underground
Tank Management Bureau

June 28, 2010

Mr. Martin Van Oort
Montana DEQ/Solid Waste Program
P.O. Box 200901
Helena, MT 59620-0901

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OLD SILVER BOW LANDFILL
APRIL 2010 GROUNDWATER MONITORING

The April 2010 round of sampling at the Old Silver Bow Landfill included sampling for the full Table 2 list of analytics in accordance with the Assessment Monitoring program. Table 1, attached, summarizes the analytical results. The discussion below compares these data to previous results and to current Maximum Contaminant Levels (MCLs) and Montana Human Health Standards (HHSs).

Well MBMG-2 (up gradient):

No semi-volatiles, volatile, chlorinated acids, or pesticides were detected in the well during this sampling event. MBMG-2 is the background well for this site. Metals detected in this wellabove the MDL are; As (.0012 mg/L), Ba (0.130 mg/L), Cu (0.0011 mg/L), Fe (0.096 mg/L), Se (0.0008 mg/L), and V (0.0062 mg/l).
Nitrate/nitrite (3.90 mg/L), Chloride (56 mg/l), and Sulfate (142 mg/L) were also detected above the MDL for these compounds.
No MCL or HHS exceedences were observed in this well during this sampling event.

Well BSB-A1 (North):

No volatile, chlorinated acids, or pesticides were detected in the well during this sampling event. One semi-volatile compound was detected, bis(2-ethylhexyl)Phthalate at (8.73 µg/L J). In accordance with the modified assessment-monitoring program, a sample for metals analyses was not collected from this well.
There were no inorganic compounds detected at levels above maximum baseline or above maximum background in this well during this sampling event.
No MCL or HHS exceedences were observed in this well during this sampling event.

Well BSB-A5 (Northeast Well):

No samples were collected from well BSB-A5 during this sampling event as the well was dry.

Well BSB-A6-R (Central Well):

Well BSB-A6-R is the replacement well for BSB-A6, removed during the construction of Timber Butte Youth Park. Seven volatile organic compounds (VOC's) were detected in this well; two of the seven were detected at levels below the quantification limit. The seven volatile organic compounds were as follows:

- Benzene (0.52 J ug/L); exceeds maximum background.
- 1,4 – Dichlorobenzene (1.1 ug/L); exceeds maximum background.
- Dichlorodifluoromethane (1.8 ug/L); exceeds maximum background.
- 1,1-DCA (1.8 ug/L); exceeds maximum background.
- Cis-1,2-DCE (3.6 ug/L); exceeds maximum background.
- Methylene Chloride (0.52 J ug/L); newly detected compound.
- Vinyl Chloride (2.1 ug/L). Exceeds maximum background.

Vinyl Chloride exceeds the MDEQ-7 HHS standard of 0.2 ug/L.
No other semi-volatiles, pesticides or chlorinated acids were detected.
In accordance with the modified assessment-monitoring program, a sample for metals analyses was not collected from this well.
Sulfate (1130 mg/L), Cyanide (0.0133 mg/L) and COD (344 mg/L), all exceed maximum background concentrations. Sulfate exceeds the secondary USEPA MCL of 250 mg/L.
Nitrate/Nitrite (0.32 mg/L exceeds maximum baseline for well BSB-A6R.

Well CLK-1 (Clark Tailings East Well):

In accordance with the modified assessment-monitoring program, no samples for organic analyses were collected from this well. Metals detected above maximum background are; arsenic (0.120 mg/L), cadmium (0.014 mg/L, colbalt (0.051 mg/L), iron (16.1 mg/L), nickel (0.046 mg/L) and zinc (56.8 mg/L). Arsenic, cadmium, iron and zinc exceed US EPA MCL or Montana HHS standards.
Sulfate was detected at a concentration of 1050 mg/L, which exceeds the maximum background and the secondary MCL for this compound.

Well CLK-2 (Clark Tailings North Well):

In accordance with the modified assessment-monitoring program, no samples for organic analyses were collected from this well. Metals detected above maximum background but below maximum baseline are; nickel (0.035 mg/L) and zinc (0.660 mg/L).
Concentrations for both of these metals are well below MCLs, secondary MCLs, or Montana HHS concentrations for these metals.
Sulfate was detected at a concentration of 482 mg/L, which exceeds the maximum background and the secondary MCL for this compound.

Conclusion:

The April 2010 sampling event at the Old Butte-Silver Bow Landfill included sampling according to the modified assessment-monitoring program (see Table 1 for analytical data). The results for metals, inorganics, and organic contaminants obtained from this sampling event were lower in general from the last sampling event but comparable to previous results.

TABLE I: ANALYTICAL DATA FOR GROUNDWATER SAMPLES, OLD SILVER BOW COUNTY LANDFILL

DATE SAMPLED: October, 21 2009

SAMPLE NUMBER	BSB-GW-O1	BSB-GW-O2	BSB-GW-O3	BSB-GW-O4	BSB-GW-O5	BSB-GW-O6	BSB-GW-07	BSB-GW-08	BSB-GW-O9	GW PROTECTION STANDARDS	
WELL	MBMG-2	BSB-A1	BSB-A5	BSB-A6-R	CLK-1	CLK-2	BSB-A6R DUPE	CLK-2 DUPE	Field Blank Trip Blank	USEPA MCL*	MONTANA HHS
ANALYTE (units):											
DISSOLVED METALS (mg/L)											
Antimony	< 0.0005	NR	NR	NR	< 0.0005	< 0.0005	NR	< 0.0005	< 0.0005	0.006	0.014
Arsenic	0.0012	NR	NR	NR	0.120	0.0010	NR	0.0009	< 0.0005	0.05	0.01
Barium	0.13	NR	NR	NR	0.023	0.019	NR	0.018	< 0.0003	2	2
Beryllium	< 0.00020	NR	NR	NR	0.00036	< 0.0002	NR	< 0.0002	< 0.0002	0.004	0.004
Cadmium	< 0.00008	NR	NR	NR	0.014	0.00110	NR	0.00110	< 0.00008	0.005	0.005
Chromium	< 0.0005	NR	NR	NR	0.0047	< 0.0005	NR	0.0006	< 0.0005	0.1	0.1
Cobalt	< 0.0005	NR	NR	NR	0.051	< 0.0005	NR	< 0.0005	< 0.0005	- - -	- - -
Copper	0.0011	NR	NR	NR	0.0044	0.0055	NR	0.0053	< 0.0005	1.3 (a)	1.3
Iron	0.096	NR	NR	NR	16.1	< 0.050	NR	< 0.050	< 0.050	0.3(s)	0.3
Lead	0.00014	NR	NR	NR	0.0002	0.0002	NR	< 0.0001	< 0.0001	0.015 (a)	0.015
Mercury	< 0.0002	NR	NR	NR	< 0.0002	< 0.0002	NR	< 0.0002	< 0.0002	0.002	0.002
Nickel	< 0.0005	NR	NR	NR	0.0460	0.0350	NR	0.0350	< 0.0005	0.1	0.1
Selenium	0.0008	NR	NR	NR	< 0.0005	< 0.0005	NR	< 0.0005	< 0.0005	0.05	0.05
Silver	< 0.00050	NR	NR	NR	< 0.0005	< 0.0005	NR	< 0.0005	< 0.0005	0.1	0.1
Thallium	< 0.00010	NR	NR	NR	< 0.0001	< 0.0001	NR	< 0.0001	< 0.0001	0.002	0.002
Tin	NR	NR	NR	NR	NR	NR	NR	NR	NR		
Vanadium	0.0062	NR	NR	NR	0.0004	0.0023	NR	0.0022	< 0.0001	- - -	- - -
Zinc	< 0.0050	NR	NR	NR	56.8	0.660	NR	0.660	< 0.005	5	2
INORGANICS (mg/L)											
Chloride	56	17	NS	61	29	64	NR	NR	< 2.0	250	- - -
COD	< 50.0	< 50.0	NS	344	NR	NR	NR	NR	NR	- - -	- - -
Conductivity (umhos/cm)	815	465	NS	2250	1970	1740	NR	NR	1.3	- - -	- - -
Cyanide	< 0.005	< 0.005	NS	0.0133	NR	NR	NR	NR	NR	- - -	0.2
Nitrate\Nitrite - N	3.9	0.41	NS	0.32	NR	NR	NR	NR	NR	10	10
pH	7.3	7.3	NS	6.3	6.3	6.4	NR	NR	6.0		
Sulfate	142	72	NS	1130	1050	482	NR	NR	< 2.5	250	- - -
Sulfide	< 5.00	< 5.00	NS	18.4	NR	NR	NR	NR	NR		
EPA METHOD 8260 (ug/L)											
Acetone	< 10.0	< 10.0	NS	< 10.0	NR	NR	< 20.0	NR	< 10.0	- - -	- - -
Benzene	< 1.0	< 1.0	NS	(Pace 0.52 J)< 1.0	NR	NR	(ELI 0.52 J)< 1.0	NR	< 1.0	5	5
Carbon Disulfide	< 1.0	< 1.0	NS	< 1.0	NR	NR	< 1.0	NR	< 1.0	- - -	- - -
Chloroethane	< 1.0	< 1.0	NS	< 1.0	NR	NR	< 1.0	NR	< 1.0	- - -	- - -
Chloroform	< 1.0	< 1.0	NS	< 1.0	NR	NR	< 1.0	NR	< 1.0	- - -	70
Chlormethane	< 4.0	< 4.0	NS	< 1.0	NR	NR	< 1.0	NR	< 4.0	- - -	- - -
1,4-Dichlorobenzene	< 1.0	< 1.0	NS	1.1	NR	NR	1.0	NR	< 1.0	75	75
Dichlorodiflouromethane	< 1.0	< 1.0	NS	1.8	NR	NR	2.1	NR	< 1.0	- - -	1000
1,1-Dichloroethane	< 1.0	< 1.0	NS	1.8	NR	NR	1.8	NR	< 1.0	- - -	- - -
1,2-Dichloroethane	< 1.0	< 1.0	NS	< 1.0	NR	NR	< 1.0	NR	< 1.0	5	4
cis-1,2-Dichloroethene	< 1.0	< 1.0	NS	3.6	NR	NR	3.6	NR	< 1.0	70	70
trans-1,2-Dichloroethene	< 1.0	< 1.0	NS	< 1.0	NR	NR	< 1.0	NR	< 1.0	100	100
1,2-Dichloropropane	< 1.0	< 1.0	NS	< 1.0	NR	NR	< 1.0	NR	< 1.0	5	5
4-Isopropyltoluene	< NR	NR	NS	NR	NR	NR	NR	NR	NR	- - -	- - -
Methylene Chloride	< 4.0	< 4.0	NS	(Pace 0.52 J)< 4.0	NR	NR	(Pace 0.54 J)< 1.0	NR	< 4.0	5	30
Naphthalene	NR	NR	NS	NR	NR	NR	NR	NR	< NR	- - -	100
Tetrachloroethene	< 1.0	< 1.0	NS	< 1.0	NR	NR	< 1.0	NR	< 1.0	5	5
Trichloroethene	< 1.0	< 1.0	NS	< 1.0	NR	NR	< 1.0	NR	< 1.0	5	5
1,2,4-Trimethylbenzene	NR	NR	NS	NR	NR	NR	NR	NR	NR	- - -	- - -
Vinyl Chloride	< 0.4	< 0.4	NS	2.1	NR	NR	2.2	NR	< 0.4	2	0.2
EPA METHOD 8270 (ug/L)											
bis(2-ethylhexyl)Phthalate	< 10	(Pace 8.73J)< 10	NS	< 10	NR	NR	NR	NR	NR	6	6
EPA METHOD 8151 (ug/L) 2,4-D	< 0.2	< 0.2	NS	< 0.2	NR	NR	NR	NR	NR		
EPA METHOD 8081 (ug/L)	ND	ND	NS	ND	NR	NR	NR	NR	NR		

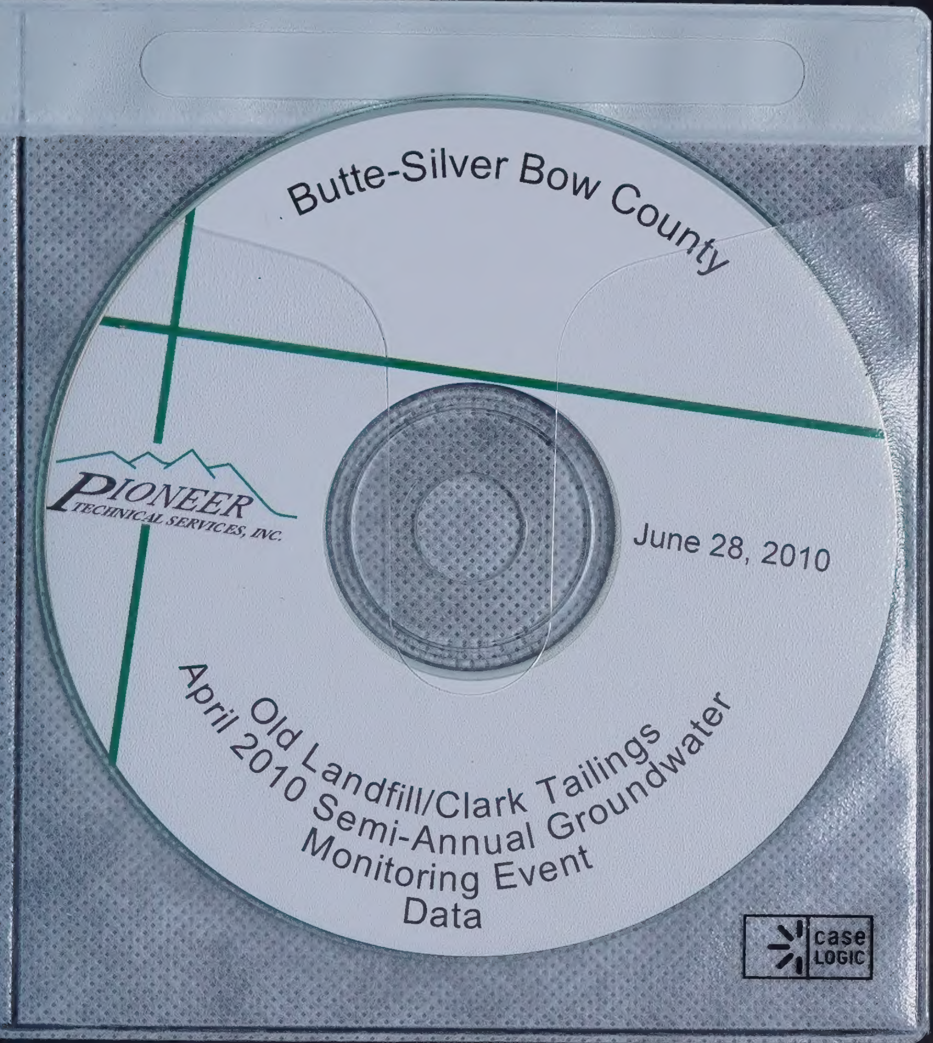
* MCL definitions: a = action level, not an MCL; s = secondary MCL (aesthetics)
NA = Not enough sample available for analysis
NR = Analysis Not Requested
ND = Analyte Not Detected
J = Estimated Quantity. Anlyte present, but less than the practical quantitation limit (PQL).
NS= Sample Not Collected (Dry Well-BSB-A5)
SA = Sample Not Taken

Old Butte-Silver Bow County Landfill
GROUNDWATER FIELD CHEMISTRY RESULTS AND PURGE VOLUMES
April-10

Well I.D.	Sample #	Depth (ft)	Radius (ft)	S.W.L. (ft)	TOC Elevation (ft)	Groundwater Elevation (ft)	pH. (su)	E.h. (mV)	S.C. (uS/cm)	T (Celsius)	Sample Time	H2O Volume Req'd (gal)	H2O Volume Purged (gal)	Comments
MBMG-2	BSB-GW-01	23.25	0.17	12.87	5529.88	5517.01	7.01	-184.7	512	7.3	15:57	5.19	4.50	
BSB-A1	BSB-GW-02	57.00	0.17	39.44	5531.50	5492.06	6.78	-248.5	271	9.1	12:00	8.78	1.00	
BSB-A5	BSB-GW-03	45.60	0.17	45.60	5524.62	5479.02	SA	SA	SA	SA	SA	0.00	1.00	Well was dry
BSB-A6-R	BSB-GW-04	59.75	0.17	53.02	5554.41	5501.39	6.13	-257.8	1275	11.6	10:30	3.37	1.00	
BSB-A6-R	BSB-GW-07	59.75	0.17	53.02	5554.41	5501.39	6.13	-257.8	1275	11.6	11:30	3.37	1.00	VOC Duplicate
CLK-1	BSB-GW-05	19.00	0.17	6.00	5478.73	5472.73	6.13	-238.6	1283	7.2	14:20	6.50	4.00	
CLK-2	BSB-GW-06	46.90	0.17	42.12	5511.17	5469.05	6.21	-230.2	1126	8.5	13:34	2.39	3.00	
CLK-2	BSB-GW-08	46.90	0.17	42.12	5511.17	5469.05	6.21	-230.2	1126	8.5	13:50	2.39	3.00	Raw, DM Duplicate
Blank	BSB-GW-09	NA	NA	NA	NA	NA	NA	NA	NA	NA	14:00	NA	NA	Field Blank

KEY:

NA	Measurement Not Taken
SA	Sample Not Taken

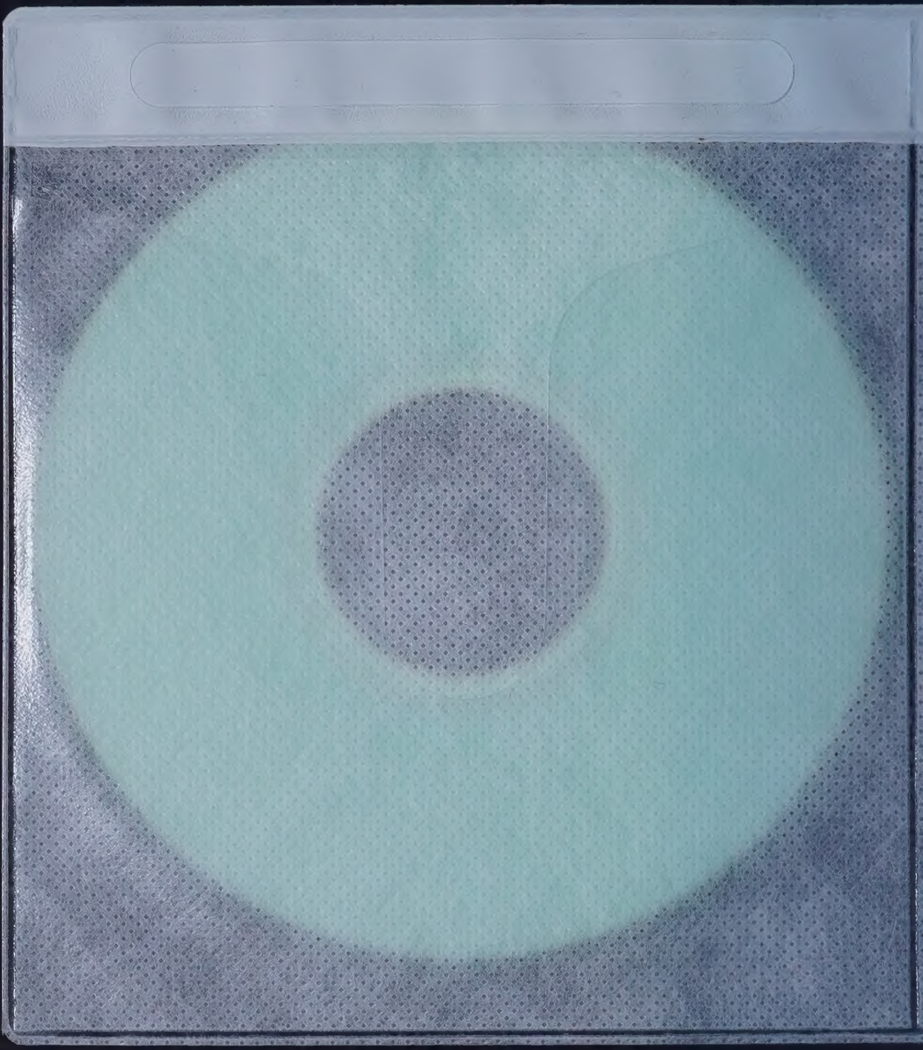


Butte-Silver Bow County

PIONEER TECHNICAL SERVICES, INC.

June 28, 2010

Old Landfill/Clark Tailings
April 2010 Semi-Annual Groundwater
Monitoring Event
Data



4/6/10 Old Landfill/Clark Tailings

12:55 Arrive on site.

Brad Hollamon > PTS.
Julie Flammang

13:00 Arrive at BSB-A5
DTW- Dry @ 45.60, TD - 45.60'
Column - N/A , 2"-dia.
3 Well Vol. - N/A

13:10 Arrive at CLK-2
DTW - 42.12 IPVC, TD - 46.90'
Column - 4.78' , 2" dia.
3 Well Vol. - 2.39 gallons

13:22 Begin purging w/ 12v
Submersable pump w/ valve.
Purging at 0.75L/min.
Pump set 44'. Purged 3.0 gallons

13:34 Collect BSB-GW-06

1L-HDPE, Raw, pH, SC, Cl$^-$, SO$_4^{-2}$
1250ml, HDPE, Filt/HNO3, Diss metals

13:50 Collect BSB-GW-08

1-L, HDPE, Raw - pH, SC, Cl$^-$, SO$_4^{-2}$
1-250ml, HDPE, Filt/HNO3 - Diss. metals

Duplicate Sample of CLK-2.

13:50 Arrive at CLK-1
DTW - 6.00 IPVC, TD - 19.00'
Column - 13.00' , 2"-dia.
3 Well Vol. - 6.50 gallons

14:00 Begin purging w/ 12volt
submersible pump, set at 17 ft,
purging at 0.25 gpm.

1420 collect BSB-GW-05

1-L, HDPE, Raw - pH, SC, Cl$^-$, SO$_4^{-2}$
1-250ml, HDPE, Filt/HNO3. Diss metals

14:35 Arrive at MBMG-2
DTW - 12.87' IPVC, TD - 23.25'
Column - 10.38, 2"-dia.
3 Well Vol. -

4/6/10 MBMG-2 (cont.)

14:45 Begin purging w/ 12volt Submersible pump, set at 18', purging at 0.25 LPM. Initial Drawdown to 12.99'.

15:57 collect BSB-GW-01

1-L, HDPE, Raw - pH, SC, Cl$^-$, SO$_4^{-2}$
1-250ml, HDPE, Filt/HNO$_3$ - Diss Metals
1-250ml, HDPE, NaOH - Cyanide
1-250ml, HDPE, H$_2$SO$_4$ - COD, NO$_2$/NO$_3$
1-500ml, HDPE, NaOH/ZnAc - Sulfide
2-1L Amberglass, Raw - 8151
2-1L Amberglass, Raw - 8081
2-1L Amberglass, Raw - 8270
2-1L Amberglass, Raw - 8082
3-40ml VOA Vials, HCl - 8260

Final Drawdown - 12.97
Finished sampling @ 1645
Total gallons purged -

4/7/10 Old Landfill/Clark Tailings

10:00 Arrive on-site.

Julie Flammang > PTS
Brad Hollamon

Monitor Methane in site building - Julie.

10:05 Arrive at BSB-A1
DTW - 39.44' TPVC, TD - 57.00'
Column - 17.56', 2''-dia
3 Well Vol. - 8.78 gallons

10:30 Begin purging w/ 12volt Submersible pump, set at 47', purging at
Initial drawdown 39.76'.

1200 collect BSB-GW-02

1-L, HDPE, Raw - pH, SC, Cl$^-$, SO$_4^{-2}$ BH
~~1-250ml, HDPE, Filt./HNO$_3$ - Diss. Metals~~
1-250ml, HDPE, NaOH - Cyanide
1-250ml, HDPE, H$_2$SO$_4$ - COD, NO$_2$/NO$_3$

4/7/10 BSB-A1 (cont.)

1-500ml, HDPE, NaOH/ZnAc - Sulfide
2-1L, Amberglass, Raw - 8151
2-1L, Amberglass, Raw - 8081
2-1L Amberglass, Raw - 8270
2-1L, Amberglass, Raw - 8082
3-40 ml VOA vials, HCl - 8260

Final drawdown - 39.62'
Finished Sampling at 16:00
Total gallons purged - 1 gallon

4/8/10

0855 Arrive @ BSB-A6R
B.Holloman
J.Flammang } PTS

Cloudy, Breeze, 35F

BSB-A6R, DTW - 53.02' IPVC
TD - 59.75, column - 6.73'
2"-dia, 3 Well Vol. - 3.3 gallons

Initial Drawdown - 53.38' IPVC

Begin Purging @ 915 using 3 stage 12 v submersible pump & truck battery. Value controls flow - Pump set @ approx
Purging at ~~LPM~~ 50 ml a minute
Dedicated tubing

1030 Collect BSB-GW-04
1-1 L HDPE, Raw, pH, SC, Cl^-, SO_4^{-2}
1-250 ml HDPE, NaOH - Cyanide
1-250 ml HDPE, H_2SO_4 - COD, NO_2/NO_3
1-500 ml HDPE, NaOH/ZnAc - Sulfide
2-1 L, Amber glass, Raw, 8151

BSB-GW-04 cont

2-1L, amber glass, Raw - 8081
2-1L, amber glass, Raw - 8270
2-1L, amber glass, Raw - 8082
3-40 ml vials, HCL - 8260

1130 Collect BSB-GW-07
3-40 ml vials, HCL - 8260
Duplicate sample of BSB-GW-04

Final Drawdown - 53.31'
Total Gallons Purged - 1 gallon
Finished Sampling @ 13:45

14:00 collect BSB-GW-09

Field Blank - Bottle were filled w/ D.I. Water.

1-L, HDPE, Raw - pH, SC, Cl^-, SO_4^{-2}
1-250 ml, HDPE, Filt/HNO_3, Diss. Metals

FIELD SAMPLE DATA SHEET

Page __ of __

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION BSB-AGR DATE 4/8/10 TIME 855
SAMPLERS F/BH WEATHER CONDITIONS Windy, 35°F, Cloudy
PHOTO: Yes ____ No X ROLL# ____ NUMBER ____

PURGE DATA:

WELL DEPTH 59.75 Feet
PURGE METHOD 3 stage 12volt w/valve + truck
DEPTH TO WATER 53.02 Feet TPVC
START PURGING 915
COLUMN DEPTH 6.73 Feet
PURGE RATE ____ GPM
CASING DIAMETER 2" Inch
RATE CHANGE 1) Time ____ Rate ____
PUMP SET AT ____ Feet
2) Time ____ Rate ____
3 WELL VOLUMES 3.3 Gallons
SAMPLE TIME 1030
TOTAL PURGE VOLUME 1 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-04	1 Liter		~~HNO3~~ Raw	~~Dissolved Metals~~ pH, Se, Cl, SO4, F
BSB-GW-04	250 ml		NaOH	CN⁻
BSB-GW-04	2- 1 Liter Amber		Raw	8081
BSB-GW-04	250 ml		H2SO4	COD, NO2/NO3
BSB-GW-04	2- 1 Liter Amber		Raw	8270
BSB-GW-04	500 ~~250~~ ml		NaOH/Zn Ac	Sulfide
BSB-GW-04	2- 1 Liter Amber		Raw	8082
BSB-GW-04	3- 40 ml vials		HCL	8260
BSB-GW-04	2- 1 Liter Amber		Raw	8151

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l	
935		5.6	6.16	1393	-248.3	1.99	
940		5.6	6.16	1388	-253.6	1.82	
945		6.3	6.15	1386	-254.3	2.25	
950		6.7	6.15	1379	-256.8	1.99	
955		7.0	6.15	1379	-263.4	1.89	53.33
1000		7.1	6.15	1371	-267.5	1.80	53.2
1005		7.7	6.13	1340	-265.1	1.86	53.2
1010	3/4 + [illegible]	8.7	6.13	1304	-258.9	1.93	53.20
FINAL FIELD PARAMETERS PRIOR TO SAMPLING							
1030		11.6	6.13	1275	-257.8	1.92	

FIELD REMARKS: Initial Drawdown 53.38', water fairly murky
Dedicated tubing Final Drawdown-

* BSB-GW-07, 3 40ml vials, HCL, 8260-Duplicate Sample

Time	Amount	Temp	PH	SC	eH	DO	OT
1015		9.6	6.14	1288	-257.5	1.95	53.
1020		10.3	6.13	1284	-260.3	1.90	53.1
1025		10.8	6.13	1280	-258.4	1.92	53.1
1030		11.6	6.13	1275	-257.8	1.92	53.1

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION CLK-1 DATE 4/6/10 TIME 13:50
SAMPLERS BH/JS WEATHER CONDITIONS Cloudy, Windy, 30'S
PHOTO: Yes ______ No X ROLL# ______ NUMBER ______

PURGE DATA:

PURGE METHOD 12 volt Submersible
START PURGING 14:00
PURGE RATE 0.25 GPM
RATE CHANGE 1) Time ______ Rate ______
2) Time ______ Rate ______
SAMPLE TIME 14:20

WELL DEPTH 19.00 Feet
DEPTH TO WATER 6.00 Feet TPVC
COLUMN DEPTH 13.00 Feet
CASING DIAMETER 2" Inch
PUMP SET AT 17 Feet
3 WELL VOLUMES 6.50 Gallons
TOTAL PURGE VOLUME 4.00 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-05	1 Liter	✓	HNO_3	Dissolved Metals-
BSB-GW-05	1 Liter		Raw	pH, SC, Cl⁻, SO4-2
	1 Liter			
	1 Liter			
	1 Liter			

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
1405	1	7.5	6.25	1257	-222.6	0.90
1407	1.50	7.2	6.20	1267	-223.9	0.51
1409	2.00	7.1	6.16	1268	-233.1	0.36
1411	2.50	7.2	6.16	1276	-232.1	0.28
1413	3.00	7.2	6.15	1282	-233.3	0.28
1415	3.25	7.2	6.15	1282	-235.9	J ~~0.32~~ 0.29
1417	3.50	7.2	6.14	1280	-236.9	0.27
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						
1419	4.00	7.2	6.13	1283	-238.6	0.28

FIELD REMARKS: ______

1005
4.34 gall
1105-Begin purging
0.39 L/m- 14.72'
14.78'
5 gallons
1154-

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION CLK-2 DATE 4/6/10 TIME 13:10
SAMPLERS BA/F WEATHER CONDITIONS Cloudy, Windy, 30's
PHOTO: Yes ______ No ______ ROLL# ______ NUMBER ______

PURGE DATA:

PURGE METHOD 12 volt Pump
START PURGING 13:22
PURGE RATE 0.75 ~~GPM~~ LPm
RATE CHANGE 1) Time ______ Rate ______
2) Time ______ Rate ______
SAMPLE TIME 1334

WELL DEPTH 46,90 Feet
DEPTH TO WATER 42,12 Feet TPVC
COLUMN DEPTH 4,78 Feet
CASING DIAMETER 2 Inch
PUMP SET AT 44 Feet
3 WELL VOLUMES 2.5 Gallons
TOTAL PURGE VOLUME 3.0 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-06	1 Liter	✓	HNO_3	Dissolved Metals-
BSB-GW-06	1 Liter		Raw	pH, SC, Cl⁻, SO_4^{-2}
	1 Liter			
BSB-GW-08	1 Liter	✓	HNO_3	
BSB-GW-08	1 Liter		Raw	

Dupelicat Sample

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
1325	3/4 gal	8.5	6.23	1105	-235.7	0.68
1326	1 gal	8.5	6.23	1112	-234.9	0.64
1327	1.25	8.5	6.23	1114	-235.2	0.61
1329	1.50	8.4	6.23	1117	-233.2	0.50
1330	1.75	8.4	6.22	1121	-232.8	0.46
1331	2.00	8.5	6.22	1123	-232.3	0.43
1332	2.25	8.5	6.22	1122	-230.3	0.40
1333	2.50	8.5	6.22	1125	-229.1	0.40
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						
1334	2.75	8.5	6.21	1126	-230.2	0.36

FIELD REMARKS: Water was clear

~~Pioneer Technical Services~~

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION BSB-AS DATE 4/6/10 TIME 13:00
SAMPLERS TSH/S WEATHER CONDITIONS Cloudy, Windy, 30's
PHOTO: Yes ____ No X ROLL# ____ NUMBER ____

PURGE DATA:

PURGE METHOD ____
START PURGING ____
PURGE RATE ____ GPM
RATE CHANGE 1) Time ____ Rate ____
2) Time ____ Rate ____
SAMPLE TIME ____

WELL DEPTH 45.60 Feet
DEPTH TO WATER Dry Feet
COLUMN DEPTH NA Feet
CASING DIAMETER 2 Inch
PUMP SET AT ____ Feet
3 WELL VOLUMES NA Gallons
TOTAL PURGE VOLUME NA Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
	1 Liter		HNO_3	Dissolved Metals-
	1 Liter			
	1 Liter			
	1 Liter			
	1 Liter			

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						

FIELD REMARKS: ____

Pioneer Technical Services

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION MBMG-2 DATE 4/6/10 TIME 14:355
SAMPLERS BAIS WEATHER CONDITIONS Cloudy, Windy, 40's
PHOTO: Yes ______ No X ROLL# ______ NUMBER ______

PURGE DATA:

PURGE METHOD	12 volt Submersible	WELL DEPTH	23.25 Feet
START PURGING	14:45	DEPTH TO WATER	12.87 Feet
PURGE RATE	0.25 ~~GPM~~ LPm	COLUMN DEPTH	10.38 Feet
RATE CHANGE	1) Time ______ Rate ______	CASING DIAMETER	2" Inch
	2) Time ______ Rate ______	PUMP SET AT	18 Feet
		3 WELL VOLUMES	5.19 Gallons
SAMPLE TIME	15:57	TOTAL PURGE VOLUME	Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-01	1-250ml ~~1 Liter~~	✓	HNO_3	Dissolved Metals-
BSB-GW-01	1 Liter	Raw		pH, SC, Cl⁻, SO4-2
BSB-GW-01	~~1 Liter~~ 250		NaOH	CN⁻
BSB-GW-01	1-250ml		H_2SO_4	COD, NO2/NO3
BSB-GW-01	~~1 Liter~~ 500ml		NaOH+Zn Acetate	Sulfide
BSB-GW-01	2-1L			Chlorinated Herbicides,
BSB-GW-01	2-1 Liter			Organochlorine Pesticides by 8081
BSB-GW-01	2-1L			SVOC by 8270
BSB-GW-01	2-1 Liter			PCBs by 8082
BSB-GW-01	3-40ml vials			VOC by 8260

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l	DTW
1501	1 gal	7.0	7.01	515	-169.2	5.30	12.99
1507	1.25 gal	7.1	7.00	514	-169.0	4.60	12.99'
1511	1.6 gal	7.0	7.01	515	-171.0	4.44	12.99'
1516	1.8	7.4	6.99	512	-171.8	4.29	12.97
1521	2.25	7.5	7.00	513	-176.1	3.94	12.98
1526	2.75	7.4	7.00	512	-177.4	3.84	12.98
1531	3.00	7.4	7.00	512	-178.5	3.64	12.99
1536	3.25	7.4	7.01	512	-180.6	3.50	12.97
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						OVER	

FIELD REMARKS: Initial drawdown - 12.99'

~~Pioneer Technical Services~~

Time	Amount Purged	Temp	pH	SC	EH	DO	Dtw
1541	3.75	7.4	7.01	513	-181.7	3.74	12.9
1546	4.00	7.4	7.01	512	-184.0	3.45	12.9
1551	4.25	7.4	7.01	511	-183.7	3.34	12.9
1556	4.50	7.3	7.01	512	-184.7	3.31	

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION BSB-4i DATE 4/7/10 TIME 10:00
SAMPLERS BH/J WEATHER CONDITIONS Clear, cool, breezy
PHOTO: Yes ______ No X ROLL# ______ NUMBER ______

PURGE DATA:

PURGE METHOD	12v submersible w/truck battery	WELL DEPTH	57.00 Feet
START PURGING	1030	DEPTH TO WATER	39.44 Feet
PURGE RATE	______ ~~GPM~~ LPM	COLUMN DEPTH	17.56 Feet
RATE CHANGE	1) Time ______ Rate ______	CASING DIAMETER	2 Inch
	2) Time ______ Rate ______	PUMP SET AT	47.00 Feet
		3 WELL VOLUMES	8.78 Gallons
SAMPLE TIME	1200	TOTAL PURGE VOLUME	1 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-02	1 Liter		~~HNO$_3$~~ Raw	~~Dissolved Metals~~ SC, pH, Cl, SO$_4^{-2}$
BSB-GW-02	250 ml		NaOH	CN$^-$
BSB-GW-02	~~1 Liter~~ 250 ml		H$_2$SO$_4$	NO$_2$/NO$_3$, COD
BSB-GW-02	250 ml		NaOH/Zn Acetate	Sulfide
BSB-GW-02	2-1 Liter ~~Amber~~		Raw	8081
BSB-GW-02	2-1 Liter Amber		Raw	8270
BSB-GW-02	2-1 Liter Amber		Raw	8082
or ~~BSB-GW-02~~	or ~~2-1 L Amber~~		~~Raw Raw~~	
BSB-GW-02	~~1 Liter~~ 3 40ml vials		HCl	8260

3-250 ml HDP
H$_2$SO$_4$, NaOH+Su

Total-8-Raw, 1 L Amb
3-40ml vials, H
1-1L HDPE, Raw

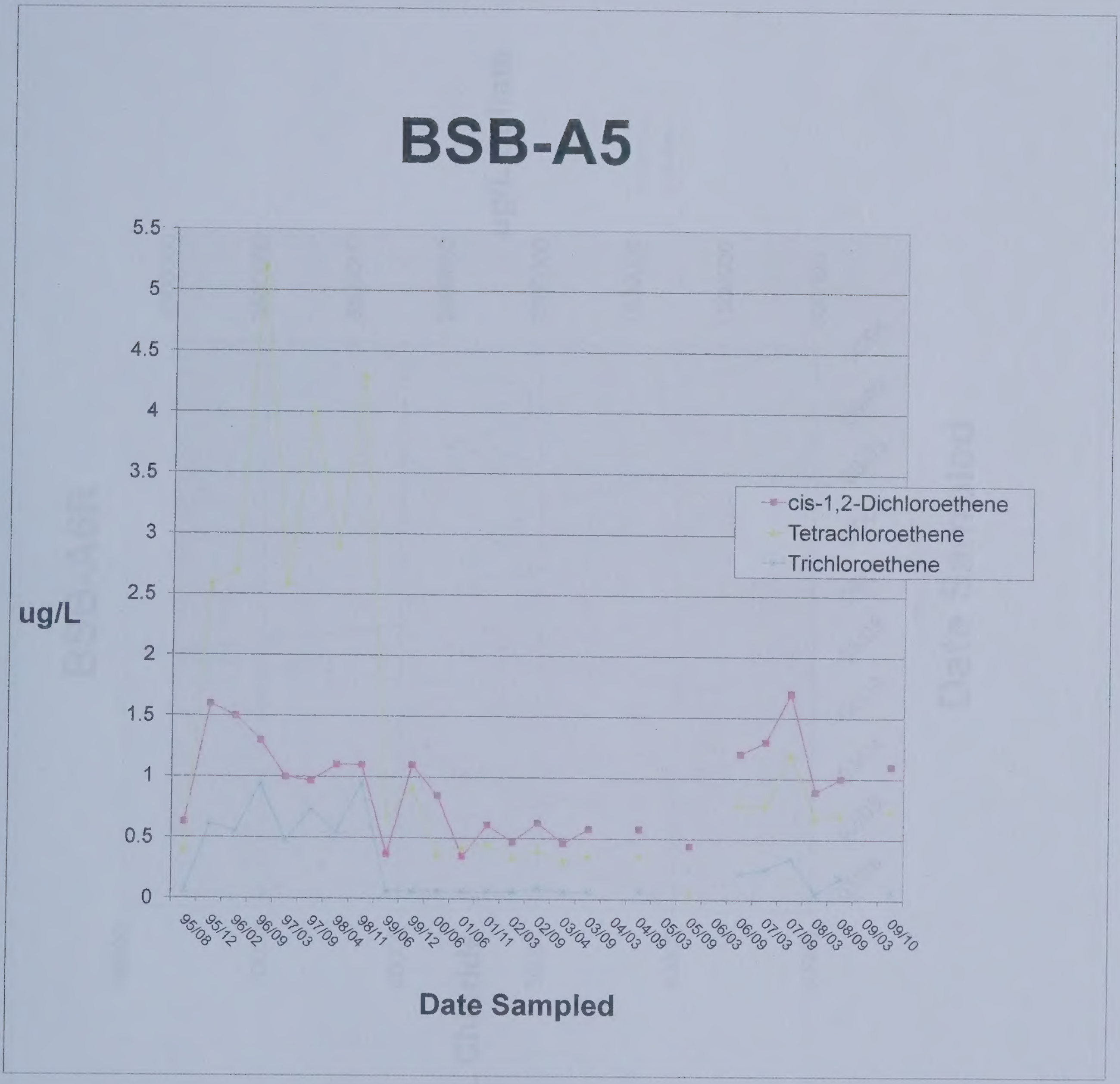
FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l	DTW
1055	.25Gal	7.4	6.66	271.8	-212.3	3.76	39.72
1100	~.35	6.5	6.74	281.7	-214.7	3.61	39.71'
1105	~.50	6.8	6.70	276.3	-220.1	3.61	39.71
1110		7.8	6.70	269.9	-223.7	3.63	39.70
1115		7.9	6.70	269.5	-226.1	3.49	39.70
1120		8.2	6.71	268.4	-229.5	3.36	39.7
1125		8.3	6.71	267.3	-233.2	3.30	39.60
FINAL FIELD PARAMETERS PRIOR TO SAMPLING							
1200	1	9.1	6.78	271.1	-248.5	3.81	39.69

FIELD REMARKS: Initial Drawdown-39.76', Purged 1 gallon
Final drawdown-39.62'

Pioneer Technical Services

	Amount Purged	Temp	PH	SC	Eh	DO	Level
1130		8.6	6.72	267.2	-236.4	3.36	39.
1135		8.5	6.72	270.7	-238.3	3.30	
1140		8.7	6.72	269.8	-239.2	3.28	39.
1145		9.1	6.72	270.1	-242.4	3.17	39
1150		8.6	6.76	275.0	-239.6	3.84	
1155		9.2	6.77	273.6	-244.0	3.81	39
1200		9.1	6.78	271.1	-248.5	3.81	3


BSB-A5
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4.5
4
3.5
3
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95/08
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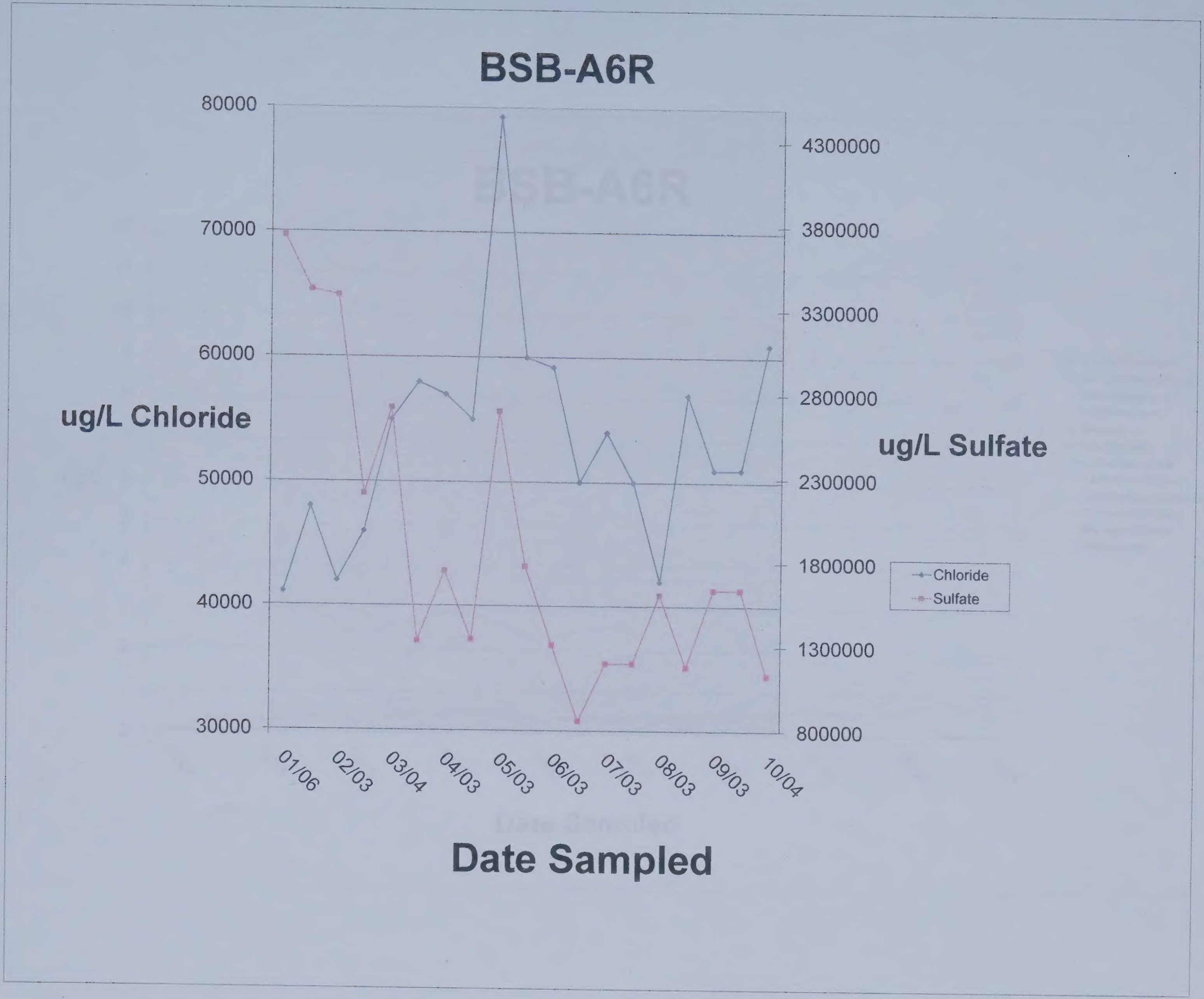
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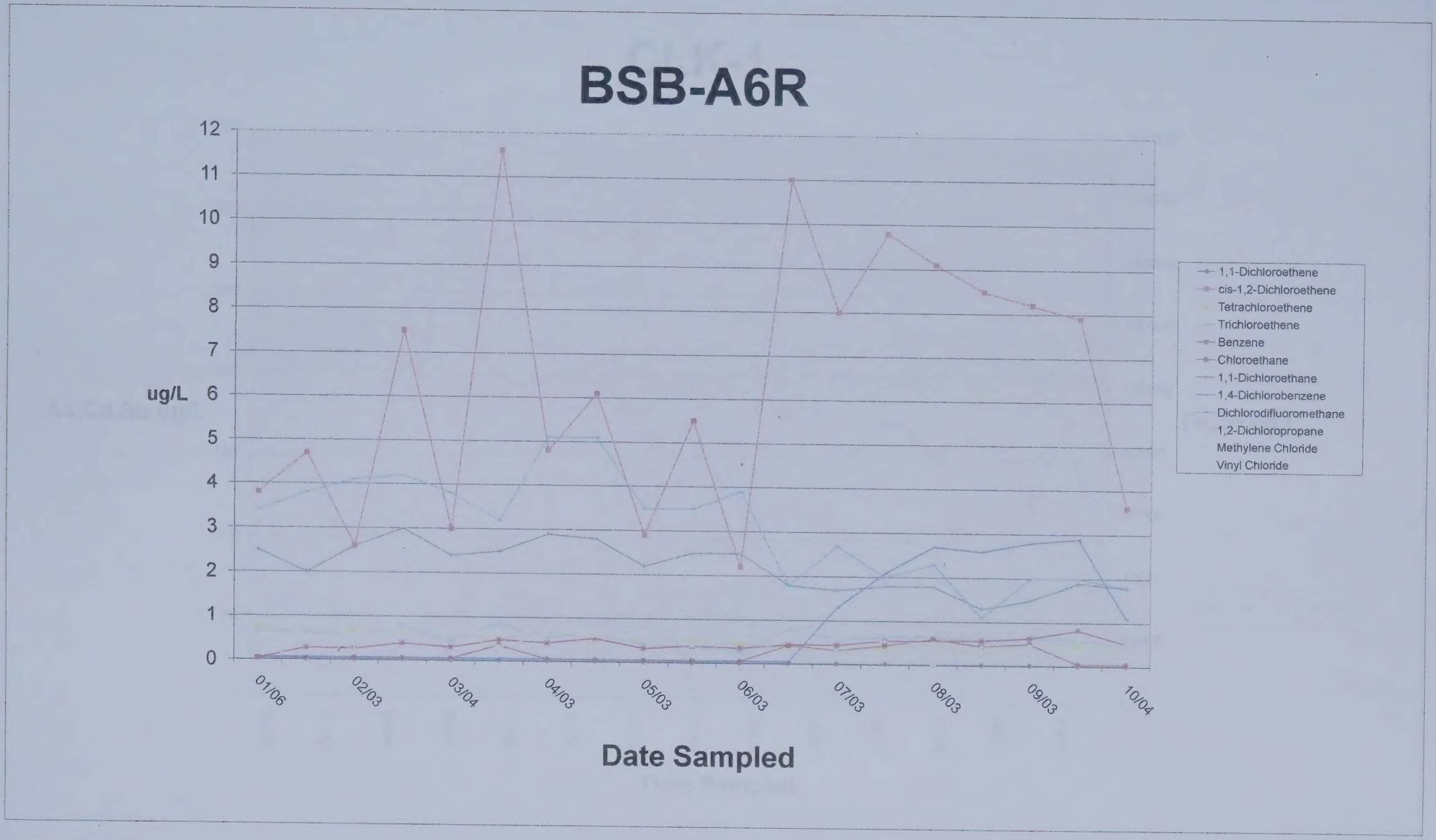
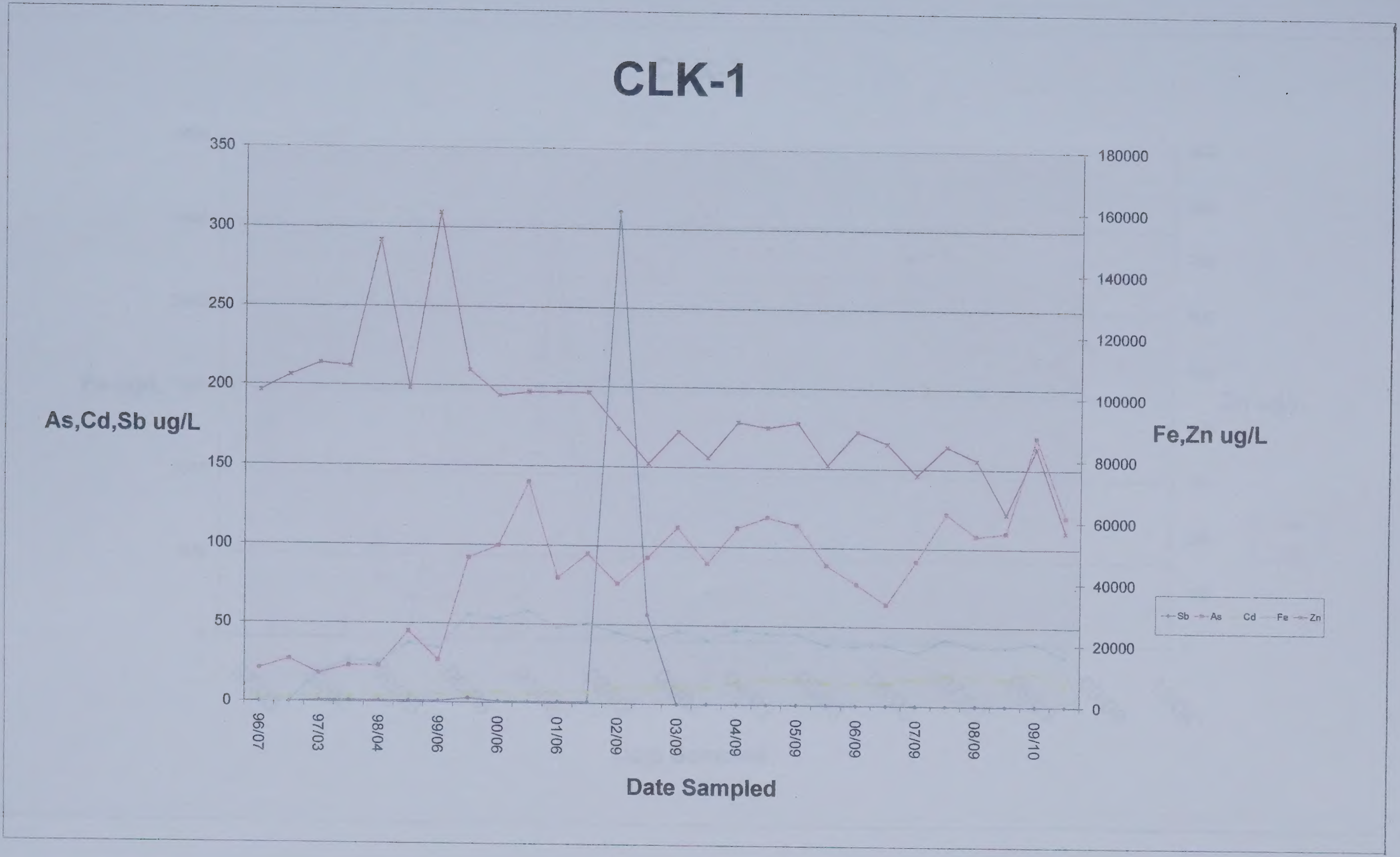
Chloride
Sulfate


BSB-A6R
ug/L
12
11
10
9
8
7
6
5
4
3
2
1
0
01/06
02/03
03/04
04/03
05/03
06/03
07/03
08/03
09/03
10/04
Date Sampled
1,1-Dichloroethene
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
Benzene
Chloroethane
1,1-Dichloroethane
1,4-Dichlorobenzene
Dichlorodifluoromethane
1,2-Dichloropropane
Methylene Chloride
Vinyl Chloride


CLK-1
350
300
250
200
150
100
50
0
As,Cd,Sb ug/L
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
Fe,Zn ug/L
Sb
As
Cd
Fe
Zn
96/07
97/03
98/04
99/06
00/06
01/06
02/09
03/09
04/09
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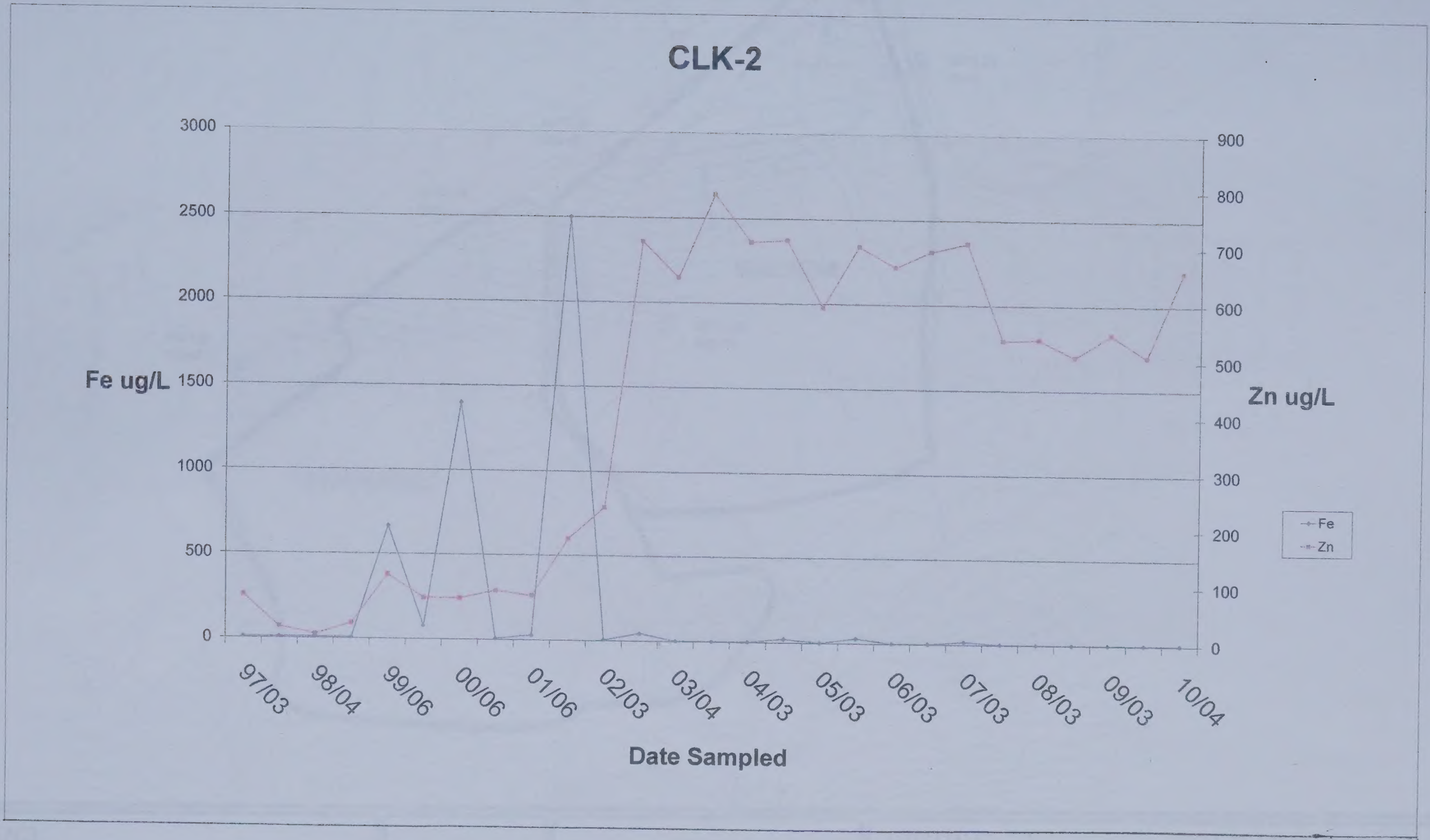
07/09
08/09
09/10
Date Sampled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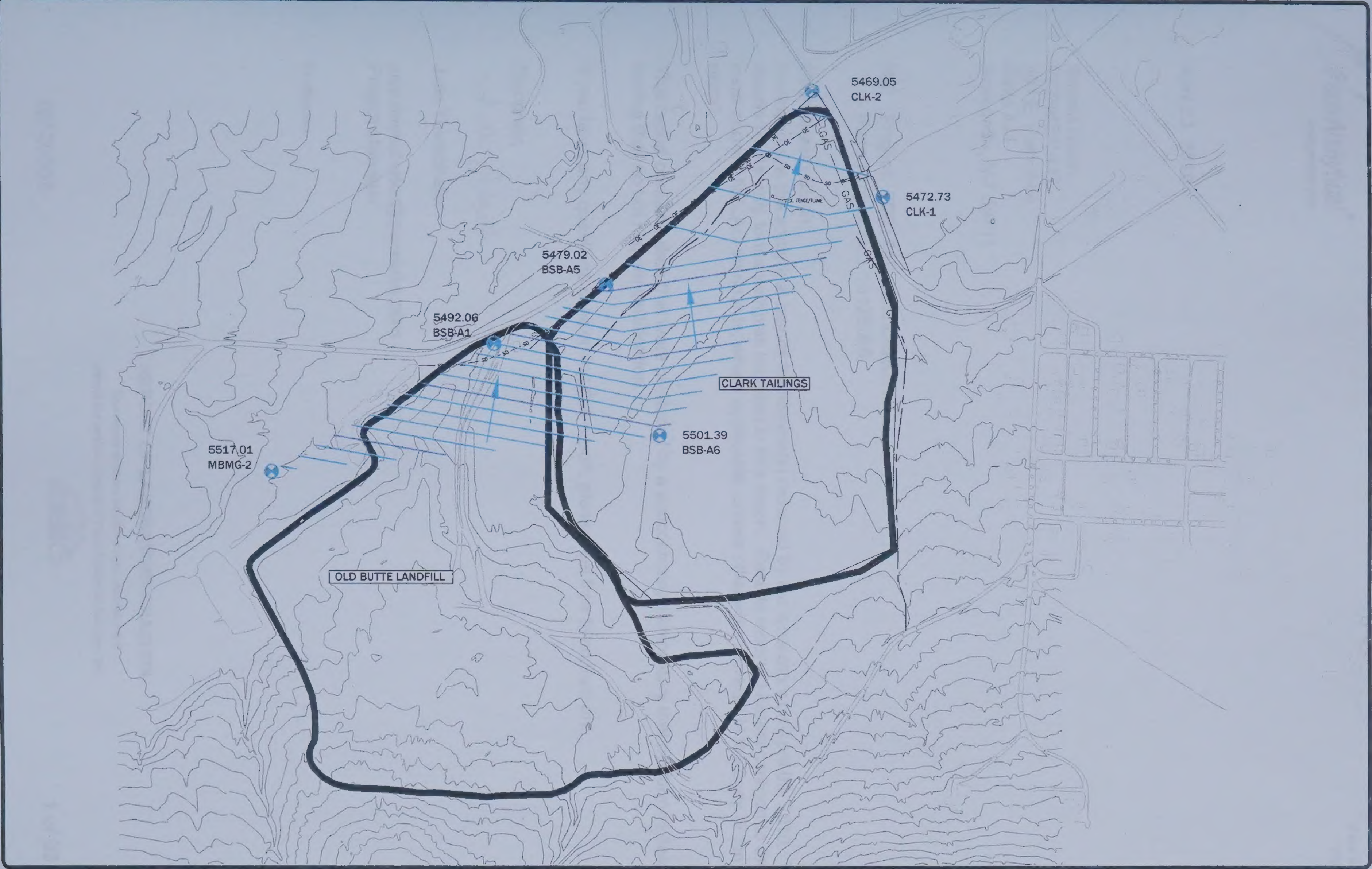
Fe ug/L
3000
2500
2000
1500
1000
500
0
Zn ug/L
900
800
700
600
500
400
300
200
100
0
97/03
98/04
99/06
00/06
01/06
02/03
03/04
04/03
05/03
06/03
07/03
08/03
09/03
10/04
Date Sampled
Fe
Zn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CLK-2
5472.73
CLK-1
5479.02
BSB-A5
5492.06
BSB-A1
5501.39
BSB-A6
5517.01
MBMG-2
CLARK TAILINGS
OLD BUTTE LANDFILL
GAS
GAS
GAS
OE
SD
EX. FENCE/FLUME

LEGEND

CLK-1 ● MONITORING WELL

— CONTOUR

CONTOUR INTERVAL= 10'

N

DISPLAYED AS:
COORD SYS/ZONE: NA
DATUM: NA
UNITS: FEET
SOURCE: PIONEER

SCALE IN FEET
0 300 600

FIGURE 1

PIONEER
TECHNICAL SERVICES, INC.
63-1/2 WEST BROADWAY
BUTTE, MONTANA 59701
(406) 782-5177

OLD MUNICIPAL LANDFILL SITE/CLARK TAILINGS FACILITY APRIL 2010

DATE: 6/3/10

6/3/2010 2:31:48 PM \\SRVW2K\CLIENTDATA1$\BUTTE-SILVER BOW\OLD LANDFILL\2010\DRAWINGS\SAMPLING 2010\OLDLNDFL-FG-PLN-001-10.DWG

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

April 23, 2010

Shawn Bisch
PIONEER-MT
307 E. Park Ave
Suite 421
Anaconda, MT 59711

RE: Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Dear Shawn Bisch:

Enclosed are the analytical results for sample(s) received by the laboratory on April 09, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

This report contains data that were produced by a subcontracted laboratory that performed fields of testing that do not require certification.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julie Thieschafer

julie.thieschafer@pacelabs.com
Project Manager

Enclosures

CERTIFICATIONS

Project:	7002 000 OLD LANDFILL
Pace Project No.:	10126068

Minnesota Certification IDs

1700 Elm Street SE, Suite 200 Minneapolis, MN 55414
Wisconsin Certification #: 999407970
Alaska Certification #: UST-078
Arizona Certification #: AZ-0014
California Certification #: 01155CA
Florida/NELAP Certification #: E87605
Illinois Certification #: 200011
Iowa Certification #: 368
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Montana Certification #: MT CERT0092
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002

Green Bay Certification IDs

North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
1241 Bellevue Street Green Bay, WI 54302
Florida/NELAP Certification #: E87948
California Certification #: 09268CA
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11887
New York Certification #: 11888
North Carolina Certification #: 503
Illinois Certification #: 200050

SAMPLE SUMMARY

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10126068001	**BSB-GW-01**	Water	04/06/10 15:57	04/09/10 09:50
10126068002	**BSB-GW-02**	Water	04/07/10 12:00	04/09/10 09:50
10126068003	**BSB-GW-04**	Water	04/08/10 10:30	04/09/10 09:50
10126068004	**BSB-GW-07**	Water	04/08/10 11:30	04/09/10 09:50
10126068005	**TRIP BLANK**	Water	04/06/10 00:00	04/09/10 09:50

SAMPLE ANALYTE COUNT

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10126068001	**BSB-GW-01**	EPA 8082	ACH1	11	PASI-M
		EPA 200.8	CJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		EPA 8260	CNC	55	PASI-M
		EPA 120.1	MWD	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		EPA 410.4	MWD	1	PASI-M
		SM 4500-NO3 H	ACH	1	PASI-M
		ASTM D516-02	KEO	1	PASI-M
		SM 4500-Cl E	KEO	1	PASI-M
		SM 4500-CN-E	ACH	1	PASI-M
10126068002	**BSB-GW-02**	EPA 8082	ACH1	11	PASI-M
		EPA 8260	CNC	55	PASI-M
		EPA 120.1	MWD	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		EPA 410.4	MWD	1	PASI-M
		SM 4500-NO3 H	ACH	1	PASI-M
		ASTM D516-02	KEO	1	PASI-M
		SM 4500-Cl E	KEO	1	PASI-M
		SM 4500-CN-E	ACH	1	PASI-M
10126068003	**BSB-GW-04**	EPA 8082	ACH1	11	PASI-M
		EPA 8260	JMW	55	PASI-M
		EPA 120.1	MWD	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		EPA 410.4	MWD	1	PASI-M
		SM 4500-NO3 H	ACH	1	PASI-M
		ASTM D516-02	KEO	1	PASI-M
		SM 4500-Cl E	KEO	1	PASI-M
		SM 4500-CN-E	ACH	1	PASI-M
10126068004	**BSB-GW-07**	EPA 8260	JMW	55	PASI-M
10126068005	**TRIP BLANK**	EPA 8260	CNC	55	PASI-M

PROJECT NARRATIVE

Project:	7002 000 OLD LANDFILL
Pace Project No.:	10126068

Method:	**EPA 8082**
Description:	8082 GCS PCB
Client:	BPAR-PIONEER-MT
Date:	April 23, 2010

General Information:
3 samples were analyzed for EPA 8082. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project:	7002 000 OLD LANDFILL
Pace Project No.:	10126068

Method: **EPA 200.8**
Description: 200.8 MET ICPMS, Dissolved
Client: BPAR-PIONEER-MT
Date: April 23, 2010

General Information:
1 sample was analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

Z2: Analyte present in the associated method blank above the detection limit.
- BSB-GW-01 (Lab ID: 10126068001)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/19964

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10126063001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- MS (Lab ID: 773493)
  - Iron, Dissolved
  - Silver, Dissolved
  - Zinc, Dissolved
- MSD (Lab ID: 773494)
  - Iron, Dissolved
  - Silver, Dissolved
  - Zinc, Dissolved

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

PROJECT NARRATIVE

Project:	7002 000 OLD LANDFILL
Pace Project No.:	10126068

Method: **EPA 200.8**
Description: 200.8 MET ICPMS, Dissolved
Client: BPAR-PIONEER-MT
Date: April 23, 2010

Additional Comments:

Analyte Comments:

QC Batch: MPRP/19964

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 773493)
  - Zinc, Dissolved
- MSD (Lab ID: 773494)
  - Zinc, Dissolved

PROJECT NARRATIVE

Project:	7002 000 OLD LANDFILL
Pace Project No.:	10126068

Method: **EPA 245.1**
Description: 245.1 Mercury, Dissolved
Client: BPAR-PIONEER-MT
Date: April 23, 2010

General Information:
1 sample was analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Method: **EPA 8260**
Description: 8260 MSV
Client: BPAR-PIONEER-MT
Date: April 23, 2010

General Information:
5 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: MSV/14259

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- BSB-GW-02 (Lab ID: 10126068002)
  - 1,2-Dichloroethane-d4 (S)
- DUP (Lab ID: 774552)
  - 1,2-Dichloroethane-d4 (S)
  - Dibromofluoromethane (S)
- TRIP BLANK (Lab ID: 10126068005)
  - 1,2-Dichloroethane-d4 (S)
  - Dibromofluoromethane (S)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/14262

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 774562)
  - Acetone

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

PROJECT NARRATIVE

Project:	7002 000 OLD LANDFILL
Pace Project No.:	10126068

Method: **EPA 8260**
Description: 8260 MSV
Client: BPAR-PIONEER-MT
Date: April 23, 2010

QC Batch: MSV/14262

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10126428003

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 774607)
  - Benzene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project:	7002 000 OLD LANDFILL
Pace Project No.:	10126068

Method: **EPA 120.1**
Description: 120.1 Specific Conductance
Client: BPAR-PIONEER-MT
Date: April 23, 2010

General Information:
3 samples were analyzed for EPA 120.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: 7002'000 OLD LANDFILL
Pace Project No.: 10126068

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: BPAR-PIONEER-MT
Date: April 23, 2010

General Information:
3 samples were analyzed for SM 4500-H+B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated more than 15 minutes after sample collection.
- BSB-GW-01 (Lab ID: 10126068001)
- BSB-GW-02 (Lab ID: 10126068002)
- BSB-GW-04 (Lab ID: 10126068003)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project:	7002 000 OLD LANDFILL
Pace Project No.:	10126068

Method: **SM 4500-S F (2000)**
Description: 4500S2F Sulfide, Iodometric
Client: BPAR-PIONEER-MT
Date: April 23, 2010

General Information:
3 samples were analyzed for SM 4500-S F (2000). All samples were received in acceptable condition with any exceptions noted below.

P4: Sample field preservation does not meet EPA or method recommendations for this analysis.
- BSB-GW-04 (Lab ID: 10126068003)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project:	7002 000 OLD LANDFILL
Pace Project No.:	10126068

Method: **EPA 410.4**
Description: 410.4 COD
Client: BPAR-PIONEER-MT
Date: April 23, 2010

General Information:
3 samples were analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Method: **SM 4500-NO3 H**
Description: SM4500NO3-H, NO2 + NO3 pres.
Client: BPAR-PIONEER-MT
Date: April 23, 2010

General Information:
3 samples were analyzed for SM 4500-NO3 H. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/8993

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10125822001,10126054022

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 771314)
  - Nitrogen, NO2 plus NO3
- MSD (Lab ID: 771315)
  - Nitrogen, NO2 plus NO3

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project:	7002 000 OLD LANDFILL
Pace Project No.:	10126068

Method: **ASTM D516-02**
Description: ASTM D516-90 Sulfate Water
Client: BPAR-PIONEER-MT
Date: April 23, 2010

General Information:
3 samples were analyzed for ASTM D516-02. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project:	7002 000 OLD LANDFILL
Pace Project No.:	10126068

Method:	**SM 4500-Cl E**
Description:	SM4500Cl-E Chloride
Client:	BPAR-PIONEER-MT
Date:	April 23, 2010

General Information:
3 samples were analyzed for SM 4500-Cl E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: WETA/8996

1M: Elevated reporting limit; Sample diluted to 5x due to colormetric interference
- BSB-GW-04 (Lab ID: 10126068003)
  - Chloride

PROJECT NARRATIVE

Project:	7002 000 OLD LANDFILL
Pace Project No.:	10126068

Method: **SM 4500-CN-E**
Description: SM4500CN-E Cyanide
Client: BPAR-PIONEER-MT
Date: April 23, 2010

General Information:
3 samples were analyzed for SM 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/9008

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10126068002,10126258001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 773714)
  - Cyanide
- MS (Lab ID: 773716)
  - Cyanide
- MSD (Lab ID: 773717)
  - Cyanide

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

MBMG-2

Sample: BSB-GW-01 **Lab ID: 10126068001** Collected: 04/06/10 15:57 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/15/10 23:16	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/15/10 23:16	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/15/10 23:16	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/15/10 23:16	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/15/10 23:16	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/15/10 23:16	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/15/10 23:16	11096-82-5	
PCB-1262 (Aroclor 1262)	ND	ug/L	0.10	0.020	1	04/13/10 15:27	04/15/10 23:16	37324-23-5	
PCB-1268 (Aroclor 1268)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/15/10 23:16	11100-14-4	
Tetrachloro-m-xylene (S)	61	%	37-125		1	04/13/10 15:27	04/15/10 23:16	877-09-8	
Decachlorobiphenyl (S)	75	%	30-131		1	04/13/10 15:27	04/15/10 23:16	2051-24-3	
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Antimony, Dissolved	ND	mg/L	0.00050	0.00016	1	04/15/10 16:38	04/16/10 13:07	7440-36-0	
Arsenic, Dissolved	**0.0012**	mg/L	0.00050	0.000062	1	04/15/10 16:38	04/16/10 13:07	7440-38-2	
Barium, Dissolved	**0.13**	mg/L	0.00030	0.000043	1	04/15/10 16:38	04/16/10 13:07	7440-39-3	
Beryllium, Dissolved	ND	mg/L	0.00020	0.000069	1	04/15/10 16:38	04/16/10 13:07	7440-41-7	
Cadmium, Dissolved	ND	mg/L	0.000080	0.000020	1	04/15/10 16:38	04/16/10 13:07	7440-43-9	
Chromium, Dissolved	**0.00036J**	mg/L	0.00050	0.00024	1	04/15/10 16:38	04/16/10 13:07	7440-47-3	
Cobalt, Dissolved	ND	mg/L	0.00050	0.00022	1	04/15/10 16:38	04/16/10 13:07	7440-48-4	
Copper, Dissolved	**0.0011**	mg/L	0.00050	0.00020	1	04/15/10 16:38	04/16/10 13:07	7440-50-8	Z2
Iron, Dissolved	**0.096**	mg/L	0.050	0.0045	1	04/15/10 16:38	04/16/10 13:07	7439-89-6	Z2
Lead, Dissolved	**0.00014**	mg/L	0.00010	0.000020	1	04/15/10 16:38	04/16/10 13:07	7439-92-1	
Nickel, Dissolved	**0.00046J**	mg/L	0.00050	0.00019	1	04/15/10 16:38	04/16/10 13:07	7440-02-0	
Selenium, Dissolved	**0.00076**	mg/L	0.00050	0.00010	1	04/15/10 16:38	04/16/10 13:07	7782-49-2	
Silver, Dissolved	ND	mg/L	0.00050	0.000071	1	04/15/10 16:38	04/16/10 13:07	7440-22-4	
Thallium, Dissolved	ND	mg/L	0.00010	0.000050	1	04/15/10 16:38	04/16/10 13:07	7440-28-0	
Vanadium, Dissolved	**0.0062**	mg/L	0.00010	0.000050	1	04/15/10 16:38	04/16/10 13:07	7440-62-2	
Zinc, Dissolved	**0.0043J**	mg/L	0.0050	0.0013	1	04/15/10 16:38	04/16/10 13:07	7440-66-6	
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	ND	mg/L	0.00020	0.000021	1	04/14/10 11:56	04/20/10 11:10	7439-97-6	
8260 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	10.0	5.0	1		04/15/10 20:25	67-64-1	
Acetonitrile	ND	ug/L	40.0	20.0	1		04/15/10 20:25	75-05-8	
Benzene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		04/15/10 20:25	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		04/15/10 20:25	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		04/15/10 20:25	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		04/15/10 20:25	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		04/15/10 20:25	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		04/15/10 20:25	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	2.0	1		04/15/10 20:25	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		04/15/10 20:25	75-00-3	

ANALYTICAL RESULTS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Sample: BSB-GW-01 **Lab ID: 10126068001** Collected: 04/06/10 15:57 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Chloroform	ND	ug/L	1.0	0.50	1		04/15/10 20:25	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		04/15/10 20:25	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		04/15/10 20:25	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		04/15/10 20:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		04/15/10 20:25	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.50	1		04/15/10 20:25	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		04/15/10 20:25	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.50	1		04/15/10 20:25	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.50	1		04/15/10 20:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		04/15/10 20:25	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		04/15/10 20:25	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		04/15/10 20:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		04/15/10 20:25	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		04/15/10 20:25	591-78-6	
Iodomethane	ND	ug/L	4.0	0.035	1		04/15/10 20:25	74-88-4	
Methylene Chloride	ND	ug/L	4.0	0.36	1		04/15/10 20:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		04/15/10 20:25	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		04/15/10 20:25	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		04/15/10 20:25	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		04/15/10 20:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		04/15/10 20:25	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		04/15/10 20:25	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		04/15/10 20:25	96-18-4	
Vinyl acetate	ND	ug/L	20.0	0.22	1		04/15/10 20:25	108-05-4	
Vinyl chloride	ND	ug/L	0.40	0.20	1		04/15/10 20:25	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		04/15/10 20:25	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		04/15/10 20:25	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		04/15/10 20:25	95-47-6	
1,2-Dichloroethane-d4 (S)	124	%	75-125		1		04/15/10 20:25	17060-07-0	
Dibromofluoromethane (S)	125	%	75-125		1		04/15/10 20:25	1868-53-7	
4-Bromofluorobenzene (S)	97	%	75-125		1		04/15/10 20:25	460-00-4	
Toluene-d8 (S)	92	%	75-125		1		04/15/10 20:25	2037-26-5	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**815**	umhos/cm	1.0	0.50	1		04/13/10 14:20		

ANALYTICAL RESULTS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Sample: BSB-GW-01 **Lab ID: 10126068001** Collected: 04/06/10 15:57 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**7.3**	Std. Units	0.10		1		04/12/10 16:25		H6
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)								
Sulfide	ND	mg/L	5.0	1.7	1		04/13/10 09:00		
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	ND	mg/L	50.0	12.0	1		04/16/10 10:55		
SM4500NO3-H, NO2 + NO3 pres.	Analytical Method: SM 4500-NO3 H								
Nitrogen, NO2 plus NO3	**3.9**	mg/L	0.10	0.027	1		04/09/10 17:15		
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**142**	mg/L	12.5	2.4	5		04/14/10 12:59	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**55.8**	mg/L	2.0	0.30	1		04/12/10 16:07	16887-00-6	
SM4500CN-E Cyanide	Analytical Method: SM 4500-CN-E								
Cyanide	ND	ug/L	10.0	3.5	1		04/16/10 11:00	57-12-5	

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ANALYTICAL RESULTS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

BSB-A1

Sample: BSB-GW-02 **Lab ID: 10126068002** Collected: 04/07/10 12:00 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:24	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:24	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:24	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:24	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:24	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:24	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:24	11096-82-5	
PCB-1262 (Aroclor 1262)	ND	ug/L	0.10	0.020	1	04/13/10 15:27	04/16/10 01:24	37324-23-5	
PCB-1268 (Aroclor 1268)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:24	11100-14-4	
Tetrachloro-m-xylene (S)	62	%	37-125		1	04/13/10 15:27	04/16/10 01:24	877-09-8	
Decachlorobiphenyl (S)	72	%	30-131		1	04/13/10 15:27	04/16/10 01:24	2051-24-3	
8260 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	10.0	5.0	1		04/15/10 20:46	67-64-1	
Acetonitrile	ND	ug/L	40.0	20.0	1		04/15/10 20:46	75-05-8	
Benzene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		04/15/10 20:46	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		04/15/10 20:46	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		04/15/10 20:46	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		04/15/10 20:46	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		04/15/10 20:46	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		04/15/10 20:46	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	2.0	1		04/15/10 20:46	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		04/15/10 20:46	75-00-3	
Chloroform	ND	ug/L	1.0	0.50	1		04/15/10 20:46	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		04/15/10 20:46	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		04/15/10 20:46	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		04/15/10 20:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		04/15/10 20:46	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.50	1		04/15/10 20:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		04/15/10 20:46	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.50	1		04/15/10 20:46	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.50	1		04/15/10 20:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		04/15/10 20:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		04/15/10 20:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		04/15/10 20:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		04/15/10 20:46	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		04/15/10 20:46	591-78-6	

ANALYTICAL RESULTS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Sample: BSB-GW-02 **Lab ID: 10126068002** Collected: 04/07/10 12:00 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Iodomethane	ND	ug/L	4.0	0.035	1		04/15/10 20:46	74-88-4	
Methylene Chloride	ND	ug/L	4.0	0.36	1		04/15/10 20:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		04/15/10 20:46	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		04/15/10 20:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		04/15/10 20:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		04/15/10 20:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		04/15/10 20:46	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		04/15/10 20:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		04/15/10 20:46	96-18-4	
Vinyl acetate	ND	ug/L	20.0	0.22	1		04/15/10 20:46	108-05-4	
Vinyl chloride	ND	ug/L	0.40	0.20	1		04/15/10 20:46	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		04/15/10 20:46	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		04/15/10 20:46	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		04/15/10 20:46	95-47-6	
1,2-Dichloroethane-d4 (S)	126	%	75-125		1		04/15/10 20:46	17060-07-0	S3
Dibromofluoromethane (S)	125	%	75-125		1		04/15/10 20:46	1868-53-7	
4-Bromofluorobenzene (S)	93	%	75-125		1		04/15/10 20:46	460-00-4	
Toluene-d8 (S)	91	%	75-125		1		04/15/10 20:46	2037-26-5	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**465**	umhos/cm	1.0	0.50	1		04/13/10 14:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**7.3**	Std. Units	0.10		1		04/12/10 16:25		H6
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)								
Sulfide	ND	mg/L	5.0	1.7	1		04/13/10 09:00		
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	ND	mg/L	50.0	12.0	1		04/16/10 10:55		
SM4500NO3-H, NO2 + NO3 pres.	Analytical Method: SM 4500-NO3 H								
Nitrogen, NO2 plus NO3	**0.41**	mg/L	0.10	0.027	1		04/09/10 17:20		
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**72.0**	mg/L	12.5	2.4	5		04/14/10 12:59	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**16.9**	mg/L	2.0	0.30	1		04/12/10 16:07	16887-00-6	

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ANALYTICAL RESULTS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Sample: BSB-GW-02 **Lab ID: 10126068002** Collected: 04/07/10 12:00 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SM4500CN-E Cyanide	Analytical Method: SM 4500-CN-E								
Cyanide	ND	ug/L	10.0	3.5	1		04/16/10 11:01	57-12-5	M0

ANALYTICAL RESULTS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

BSB-A6R

Sample: BSB-GW-04 **Lab ID: 10126068003** Collected: 04/08/10 10:30 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:40	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:40	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:40	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:40	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:40	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:40	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:40	11096-82-5	
PCB-1262 (Aroclor 1262)	ND	ug/L	0.10	0.020	1	04/13/10 15:27	04/16/10 01:40	37324-23-5	
PCB-1268 (Aroclor 1268)	ND	ug/L	0.10	0.050	1	04/13/10 15:27	04/16/10 01:40	11100-14-4	
Tetrachloro-m-xylene (S)	83	%	37-125		1	04/13/10 15:27	04/16/10 01:40	877-09-8	
Decachlorobiphenyl (S)	61	%	30-131		1	04/13/10 15:27	04/16/10 01:40	2051-24-3	
8260 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	10.0	5.0	1		04/16/10 15:23	67-64-1	L1
Acetonitrile	ND	ug/L	40.0	20.0	1		04/16/10 15:23	75-05-8	
Benzene	**0.52J**	ug/L	1.0	0.50	1		04/16/10 15:23	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		04/16/10 15:23	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		04/16/10 15:23	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		04/16/10 15:23	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		04/16/10 15:23	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		04/16/10 15:23	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		04/16/10 15:23	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	2.0	1		04/16/10 15:23	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		04/16/10 15:23	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		04/16/10 15:23	75-00-3	
Chloroform	ND	ug/L	1.0	0.50	1		04/16/10 15:23	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		04/16/10 15:23	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		04/16/10 15:23	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		04/16/10 15:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		04/16/10 15:23	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.50	1		04/16/10 15:23	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		04/16/10 15:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		04/16/10 15:23	541-73-1	
1,4-Dichlorobenzene	**1.1**	ug/L	1.0	0.50	1		04/16/10 15:23	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		04/16/10 15:23	110-57-6	
Dichlorodifluoromethane	**1.8**	ug/L	1.0	0.50	1		04/16/10 15:23	75-71-8	
1,1-Dichloroethane	**1.8**	ug/L	1.0	0.50	1		04/16/10 15:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		04/16/10 15:23	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		04/16/10 15:23	75-35-4	
cis-1,2-Dichloroethene	**3.6**	ug/L	1.0	0.50	1		04/16/10 15:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		04/16/10 15:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		04/16/10 15:23	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		04/16/10 15:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		04/16/10 15:23	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		04/16/10 15:23	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		04/16/10 15:23	591-78-6	

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ANALYTICAL RESULTS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Sample: BSB-GW-04 **Lab ID: 10126068003** Collected: 04/08/10 10:30 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Iodomethane	ND	ug/L	4.0	0.035	1		04/16/10 15:23	74-88-4	
Methylene Chloride	**0.52J**	ug/L	4.0	0.36	1		04/16/10 15:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		04/16/10 15:23	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		04/16/10 15:23	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		04/16/10 15:23	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		04/16/10 15:23	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.50	1		04/16/10 15:23	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		04/16/10 15:23	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		04/16/10 15:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		04/16/10 15:23	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		04/16/10 15:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		04/16/10 15:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		04/16/10 15:23	96-18-4	
Vinyl acetate	ND	ug/L	20.0	0.22	1		04/16/10 15:23	108-05-4	
Vinyl chloride	**2.1**	ug/L	0.40	0.20	1		04/16/10 15:23	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		04/16/10 15:23	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		04/16/10 15:23	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		04/16/10 15:23	95-47-6	
1,2-Dichloroethane-d4 (S)	101	%	75-125		1		04/16/10 15:23	17060-07-0	
Dibromofluoromethane (S)	106	%	75-125		1		04/16/10 15:23	1868-53-7	
4-Bromofluorobenzene (S)	102	%	75-125		1		04/16/10 15:23	460-00-4	
Toluene-d8 (S)	95	%	75-125		1		04/16/10 15:23	2037-26-5	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**2250**	umhos/cm	1.0	0.50	1		04/13/10 14:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.3**	Std. Units	0.10		1		04/12/10 16:25		H6
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)								
Sulfide	**18.4**	mg/L	5.0	1.7	1		04/13/10 09:00		P4
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	**344**	mg/L	50.0	12.0	1		04/16/10 10:55		
SM4500NO3-H, NO2 + NO3 pres.	Analytical Method: SM 4500-NO3 H								
Nitrogen, NO2 plus NO3	**0.32**	mg/L	0.10	0.027	1		04/09/10 17:20		
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**1130**	mg/L	125	23.5	50		04/14/10 13:07	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**60.6**	mg/L	10.0	1.5	5		04/12/10 16:07	16887-00-6	1M

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ANALYTICAL RESULTS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Sample: BSB-GW-04 **Lab ID: 10126068003** Collected: 04/08/10 10:30 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SM4500CN-E Cyanide	Analytical Method: SM 4500-CN-E								
Cyanide	**13.3**	ug/L	10.0	3.5	1		04/16/10 11:04	57-12-5	

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ANALYTICAL RESULTS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

BSB-AGR Dup

Sample: BSB-GW-07 **Lab ID: 10126068004** Collected: 04/08/10 11:30 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	10.0	5.0	1		04/16/10 15:57	67-64-1	L1
Acetonitrile	ND	ug/L	40.0	20.0	1		04/16/10 15:57	75-05-8	
Benzene	**0.52J**	ug/L	1.0	0.50	1		04/16/10 15:57	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		04/16/10 15:57	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		04/16/10 15:57	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		04/16/10 15:57	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		04/16/10 15:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		04/16/10 15:57	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		04/16/10 15:57	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	2.0	1		04/16/10 15:57	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		04/16/10 15:57	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		04/16/10 15:57	75-00-3	
Chloroform	ND	ug/L	1.0	0.50	1		04/16/10 15:57	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		04/16/10 15:57	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		04/16/10 15:57	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		04/16/10 15:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		04/16/10 15:57	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.50	1		04/16/10 15:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		04/16/10 15:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		04/16/10 15:57	541-73-1	
1,4-Dichlorobenzene	**1.0**	ug/L	1.0	0.50	1		04/16/10 15:57	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		04/16/10 15:57	110-57-6	
Dichlorodifluoromethane	**2.1**	ug/L	1.0	0.50	1		04/16/10 15:57	75-71-8	
1,1-Dichloroethane	**1.8**	ug/L	1.0	0.50	1		04/16/10 15:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		04/16/10 15:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		04/16/10 15:57	75-35-4	
cis-1,2-Dichloroethene	**3.6**	ug/L	1.0	0.50	1		04/16/10 15:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		04/16/10 15:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		04/16/10 15:57	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		04/16/10 15:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		04/16/10 15:57	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		04/16/10 15:57	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		04/16/10 15:57	591-78-6	
Iodomethane	ND	ug/L	4.0	0.035	1		04/16/10 15:57	74-88-4	
Methylene Chloride	**0.54J**	ug/L	4.0	0.36	1		04/16/10 15:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		04/16/10 15:57	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		04/16/10 15:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		04/16/10 15:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		04/16/10 15:57	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.50	1		04/16/10 15:57	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		04/16/10 15:57	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		04/16/10 15:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		04/16/10 15:57	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		04/16/10 15:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		04/16/10 15:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		04/16/10 15:57	96-18-4	

ANALYTICAL RESULTS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Sample: BSB-GW-07 **Lab ID: 10126068004** Collected: 04/08/10 11:30 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Vinyl acetate	ND	ug/L	20.0	0.22	1		04/16/10 15:57	108-05-4	
Vinyl chloride	**2.2**	ug/L	0.40	0.20	1		04/16/10 15:57	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		04/16/10 15:57	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		04/16/10 15:57	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		04/16/10 15:57	95-47-6	
1,2-Dichloroethane-d4 (S)	101	%	75-125		1		04/16/10 15:57	17060-07-0	
Dibromofluoromethane (S)	105	%	75-125		1		04/16/10 15:57	1868-53-7	
4-Bromofluorobenzene (S)	100	%	75-125		1		04/16/10 15:57	460-00-4	
Toluene-d8 (S)	97	%	75-125		1		04/16/10 15:57	2037-26-5	

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ANALYTICAL RESULTS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Sample: TRIP BLANK **Lab ID: 10126068005** Collected: 04/06/10 00:00 Received: 04/09/10 09:50 Matrix: Water

8260 MSV Analytical Method: EPA 8260

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Acetone	ND	ug/L	10.0	5.0	1		04/15/10 19:44	67-64-1	
Acetonitrile	ND	ug/L	40.0	20.0	1		04/15/10 19:44	75-05-8	
Benzene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		04/15/10 19:44	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		04/15/10 19:44	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		04/15/10 19:44	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		04/15/10 19:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		04/15/10 19:44	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		04/15/10 19:44	75-15-0	
Carbon tetrachloride	ND	ug/L	4.0	2.0	1		04/15/10 19:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		04/15/10 19:44	75-00-3	
Chloroform	ND	ug/L	1.0	0.50	1		04/15/10 19:44	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		04/15/10 19:44	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		04/15/10 19:44	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		04/15/10 19:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		04/15/10 19:44	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.50	1		04/15/10 19:44	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		04/15/10 19:44	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.50	1		04/15/10 19:44	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.50	1		04/15/10 19:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		04/15/10 19:44	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		04/15/10 19:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		04/15/10 19:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		04/15/10 19:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		04/15/10 19:44	591-78-6	
Iodomethane	ND	ug/L	4.0	0.035	1		04/15/10 19:44	74-88-4	
Methylene Chloride	ND	ug/L	4.0	0.36	1		04/15/10 19:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		04/15/10 19:44	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		04/15/10 19:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		04/15/10 19:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		04/15/10 19:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		04/15/10 19:44	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		04/15/10 19:44	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		04/15/10 19:44	96-18-4	

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ANALYTICAL RESULTS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Sample: TRIP BLANK **Lab ID: 10126068005** Collected: 04/06/10 00:00 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Vinyl acetate	ND	ug/L	20.0	0.22	1		04/15/10 19:44	108-05-4	
Vinyl chloride	ND	ug/L	0.40	0.20	1		04/15/10 19:44	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		04/15/10 19:44	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		04/15/10 19:44	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		04/15/10 19:44	95-47-6	
1,2-Dichloroethane-d4 (S)	130	%	75-125		1		04/15/10 19:44	17060-07-0	S3
Dibromofluoromethane (S)	126	%	75-125		1		04/15/10 19:44	1868-53-7	S3
4-Bromofluorobenzene (S)	95	%	75-125		1		04/15/10 19:44	460-00-4	
Toluene-d8 (S)	92	%	75-125		1		04/15/10 19:44	2037-26-5	

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QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

QC Batch: OEXT/12680
Analysis Method: EPA 8082
QC Batch Method: EPA 3510
Analysis Description: 8082 GCS PCB
Associated Lab Samples: 10126068001, 10126068002, 10126068003

METHOD BLANK: 772526
Matrix: Water
Associated Lab Samples: 10126068001, 10126068002, 10126068003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	0.10	04/15/10 20:52	
PCB-1221 (Aroclor 1221)	ug/L	ND	0.10	04/15/10 20:52	
PCB-1232 (Aroclor 1232)	ug/L	ND	0.10	04/15/10 20:52	
PCB-1242 (Aroclor 1242)	ug/L	ND	0.10	04/15/10 20:52	
PCB-1248 (Aroclor 1248)	ug/L	ND	0.10	04/15/10 20:52	
PCB-1254 (Aroclor 1254)	ug/L	ND	0.10	04/15/10 20:52	
PCB-1260 (Aroclor 1260)	ug/L	ND	0.10	04/15/10 20:52	
PCB-1262 (Aroclor 1262)	ug/L	ND	0.10	04/15/10 20:52	
PCB-1268 (Aroclor 1268)	ug/L	ND	0.10	04/15/10 20:52	
Decachlorobiphenyl (S)	%	88	30-131	04/15/10 20:52	
Tetrachloro-m-xylene (S)	%	76	37-125	04/15/10 20:52	

LABORATORY CONTROL SAMPLE & LCSD: 772527 772528

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	2	1.7	1.8	86	90	67-125	4	20	
PCB-1260 (Aroclor 1260)	ug/L	2	1.8	1.8	92	92	60-125	0	20	
Decachlorobiphenyl (S)	%				89	86	30-131			
Tetrachloro-m-xylene (S)	%				63	75	37-125			

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

QC Batch: MPRP/19964
Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8
Analysis Description: 200.8 MET Dissolved
Associated Lab Samples: 10126068001

METHOD BLANK: 773491
Matrix: Water
Associated Lab Samples: 10126068001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Arsenic, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Barium, Dissolved	mg/L	ND	0.00030	04/16/10 12:33	
Beryllium, Dissolved	mg/L	ND	0.00020	04/16/10 12:33	
Cadmium, Dissolved	mg/L	ND	0.000080	04/16/10 12:33	
Chromium, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Cobalt, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Copper, Dissolved	mg/L	0.00045J	0.00050	04/16/10 12:33	
Iron, Dissolved	mg/L	0.012J	0.050	04/16/10 12:33	
Lead, Dissolved	mg/L	ND	0.00010	04/16/10 12:33	
Nickel, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Selenium, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Silver, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Thallium, Dissolved	mg/L	ND	0.00010	04/16/10 12:33	
Vanadium, Dissolved	mg/L	ND	0.00010	04/16/10 12:33	
Zinc, Dissolved	mg/L	ND	0.0050	04/16/10 12:33	

LABORATORY CONTROL SAMPLE: 773492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	.08	0.083	103	85-115	
Arsenic, Dissolved	mg/L	.08	0.081	101	85-115	
Barium, Dissolved	mg/L	.08	0.080	99	85-115	
Beryllium, Dissolved	mg/L	.08	0.082	103	85-115	
Cadmium, Dissolved	mg/L	.08	0.081	101	85-115	
Chromium, Dissolved	mg/L	.08	0.079	99	85-115	
Cobalt, Dissolved	mg/L	.08	0.081	102	85-115	
Copper, Dissolved	mg/L	.08	0.084	104	85-115	
Iron, Dissolved	mg/L	1	1.0	103	85-115	
Lead, Dissolved	mg/L	.08	0.084	106	85-115	
Nickel, Dissolved	mg/L	.08	0.084	104	85-115	
Selenium, Dissolved	mg/L	.08	0.082	103	85-115	
Silver, Dissolved	mg/L	.08	0.083	104	85-115	
Thallium, Dissolved	mg/L	.08	0.083	104	85-115	
Vanadium, Dissolved	mg/L	.08	0.080	100	85-115	
Zinc, Dissolved	mg/L	.08	0.084	105	85-115	

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QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773493 773494

Parameter	Units	10126063001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony, Dissolved	mg/L	ND	.08	.08	0.086	0.087	108	108	70-130	0	20	
Arsenic, Dissolved	mg/L	0.12	.08	.08	0.20	0.20	107	107	70-130	0	20	
Barium, Dissolved	mg/L	0.023	.08	.08	0.11	0.11	104	104	70-130	0	20	
Beryllium, Dissolved	mg/L	0.00036	.08	.08	0.081	0.084	101	105	70-130	4	20	
Cadmium, Dissolved	mg/L	0.014	.08	.08	0.096	0.097	102	104	70-130	1	20	
Chromium, Dissolved	mg/L	0.0047	.08	.08	0.087	0.086	103	102	70-130	1	20	
Cobalt, Dissolved	mg/L	0.051	.08	.08	0.14	0.14	106	106	70-130	0	20	
Copper, Dissolved	mg/L	0.0044	.08	.08	0.089	0.088	105	105	70-130	1	20	
Iron, Dissolved	mg/L	16.1	1	1	18.0	17.8	188	166	70-130	1	20	M0
Lead, Dissolved	mg/L	0.00021	.08	.08	0.088	0.088	110	110	70-130	0	20	
Nickel, Dissolved	mg/L	0.046	.08	.08	0.13	0.13	108	108	70-130	0	20	
Selenium, Dissolved	mg/L	ND	.08	.08	0.085	0.085	106	106	70-130	0	20	
Silver, Dissolved	mg/L	ND	.08	.08	0.052	0.053	65	66	70-130	2	20	M0
Thallium, Dissolved	mg/L	0.000058J	.08	.08	0.087	0.087	109	109	70-130	0	20	
Vanadium, Dissolved	mg/L	0.00040	.08	.08	0.084	0.083	104	103	70-130	1	20	
Zinc, Dissolved	mg/L	56.8	.08	.08	59.8	59.8	3750	3812	70-130	0	20	E,M0

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

QC Batch:	MERP/4367	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury - Dissolved

Associated Lab Samples: 10126068001

METHOD BLANK: 773055 Matrix: Water

Associated Lab Samples: 10126068001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	ND	0.00020	04/20/10 10:56	

LABORATORY CONTROL SAMPLE: 773056

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	.005	0.0053	107	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773057 773058

Parameter	Units	10126063001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	mg/L	ND	.005	.005	0.0054	0.0054	108	107	85-115	1	20	

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QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

QC Batch: MSV/14259 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 10126068001, 10126068002, 10126068005

METHOD BLANK: 774280 Matrix: Water
Associated Lab Samples: 10126068001, 10126068002, 10126068005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	04/15/10 19:03	
1,1,1-Trichloroethane	ug/L	ND	1.0	04/15/10 19:03	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/15/10 19:03	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/15/10 19:03	
1,1-Dichloroethane	ug/L	ND	1.0	04/15/10 19:03	
1,1-Dichloroethene	ug/L	ND	1.0	04/15/10 19:03	
1,2,3-Trichloropropane	ug/L	ND	1.0	04/15/10 19:03	
1,2-Dibromo-3-chloropropane	ug/L	ND	4.0	04/15/10 19:03	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	04/15/10 19:03	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/15/10 19:03	
1,2-Dichloroethane	ug/L	ND	1.0	04/15/10 19:03	
1,2-Dichloropropane	ug/L	ND	1.0	04/15/10 19:03	
1,3-Dichlorobenzene	ug/L	ND	1.0	04/15/10 19:03	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/15/10 19:03	
2-Butanone (MEK)	ug/L	ND	4.0	04/15/10 19:03	
2-Hexanone	ug/L	ND	4.0	04/15/10 19:03	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	4.0	04/15/10 19:03	
Acetone	ug/L	ND	10.0	04/15/10 19:03	
Acetonitrile	ug/L	ND	40.0	04/15/10 19:03	
Benzene	ug/L	ND	1.0	04/15/10 19:03	
Bromochloromethane	ug/L	ND	1.0	04/15/10 19:03	
Bromodichloromethane	ug/L	ND	1.0	04/15/10 19:03	
Bromoform	ug/L	ND	8.0	04/15/10 19:03	
Bromomethane	ug/L	ND	4.0	04/15/10 19:03	
Carbon disulfide	ug/L	ND	1.0	04/15/10 19:03	
Carbon tetrachloride	ug/L	ND	4.0	04/15/10 19:03	
Chlorobenzene	ug/L	ND	1.0	04/15/10 19:03	
Chloroethane	ug/L	ND	1.0	04/15/10 19:03	
Chloroform	ug/L	ND	1.0	04/15/10 19:03	
Chloromethane	ug/L	ND	4.0	04/15/10 19:03	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/15/10 19:03	
cis-1,3-Dichloropropene	ug/L	ND	4.0	04/15/10 19:03	
Dibromochloromethane	ug/L	ND	1.0	04/15/10 19:03	
Dibromomethane	ug/L	ND	4.0	04/15/10 19:03	
Dichlorodifluoromethane	ug/L	ND	1.0	04/15/10 19:03	
Ethylbenzene	ug/L	ND	1.0	04/15/10 19:03	
Iodomethane	ug/L	ND	4.0	04/15/10 19:03	
m&p-Xylene	ug/L	ND	2.0	04/15/10 19:03	
Methylene Chloride	ug/L	ND	4.0	04/15/10 19:03	
o-Xylene	ug/L	ND	1.0	04/15/10 19:03	
Styrene	ug/L	ND	1.0	04/15/10 19:03	
Tetrachloroethene	ug/L	ND	1.0	04/15/10 19:03	
Toluene	ug/L	ND	1.0	04/15/10 19:03	

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

METHOD BLANK: 774280 Matrix: Water

Associated Lab Samples: 10126068001, 10126068002, 10126068005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/15/10 19:03	
trans-1,3-Dichloropropene	ug/L	ND	4.0	04/15/10 19:03	
trans-1,4-Dichloro-2-butene	ug/L	ND	10.0	04/15/10 19:03	
Trichloroethene	ug/L	ND	1.0	04/15/10 19:03	
Trichlorofluoromethane	ug/L	ND	1.0	04/15/10 19:03	
Vinyl acetate	ug/L	ND	20.0	04/15/10 19:03	
Vinyl chloride	ug/L	ND	0.40	04/15/10 19:03	
Xylene (Total)	ug/L	ND	3.0	04/15/10 19:03	
1,2-Dichloroethane-d4 (S)	%	122	75-125	04/15/10 19:03	
4-Bromofluorobenzene (S)	%	98	75-125	04/15/10 19:03	
Dibromofluoromethane (S)	%	121	75-125	04/15/10 19:03	
Toluene-d8 (S)	%	90	75-125	04/15/10 19:03	

LABORATORY CONTROL SAMPLE: 774281

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	46.0	92	75-125	
1,1,1-Trichloroethane	ug/L	50	46.9	94	75-125	
1,1,2,2-Tetrachloroethane	ug/L	50	47.2	94	75-125	
1,1,2-Trichloroethane	ug/L	50	46.3	93	75-125	
1,1-Dichloroethane	ug/L	50	46.3	93	75-125	
1,1-Dichloroethene	ug/L	50	46.7	93	69-129	
1,2,3-Trichloropropane	ug/L	50	47.9	96	72-126	
1,2-Dibromo-3-chloropropane	ug/L	50	44.6	89	67-125	
1,2-Dibromoethane (EDB)	ug/L	50	48.2	96	75-125	
1,2-Dichlorobenzene	ug/L	50	49.2	98	75-125	
1,2-Dichloroethane	ug/L	50	46.9	94	75-125	
1,2-Dichloropropane	ug/L	50	47.2	94	75-125	
1,3-Dichlorobenzene	ug/L	50	48.9	98	75-125	
1,4-Dichlorobenzene	ug/L	50	48.0	96	75-125	
2-Butanone (MEK)	ug/L	50	54.3	109	51-134	
2-Hexanone	ug/L	50	52.6	105	53-141	
4-Methyl-2-pentanone (MIBK)	ug/L	50	50.5	101	60-125	
Acetone	ug/L	125	115	92	38-125	
Acetonitrile	ug/L	500	451	90	67-125	
Benzene	ug/L	50	47.7	95	75-125	
Bromochloromethane	ug/L	50	47.1	94	75-125	
Bromodichloromethane	ug/L	50	46.7	93	75-125	
Bromoform	ug/L	100	102	102	68-125	
Bromomethane	ug/L	50	49.2	98	47-129	
Carbon disulfide	ug/L	50	46.4	93	64-125	
Carbon tetrachloride	ug/L	50	46.4	93	59-133	
Chlorobenzene	ug/L	50	46.2	92	75-125	
Chloroethane	ug/L	50	43.0	86	73-132	
Chloroform	ug/L	50	46.8	94	75-125	

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

LABORATORY CONTROL SAMPLE: 774281

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloromethane	ug/L	50	41.9	84	72-125	
cis-1,2-Dichloroethene	ug/L	50	48.7	97	75-125	
cis-1,3-Dichloropropene	ug/L	50	50.6	101	75-125	
Dibromochloromethane	ug/L	50	47.6	95	75-125	
Dibromomethane	ug/L	50	44.9	90	75-125	
Dichlorodifluoromethane	ug/L	50	38.1	76	69-134	
Ethylbenzene	ug/L	50	49.7	99	75-125	
Iodomethane	ug/L	50	47.0	94	70-130	
m&p-Xylene	ug/L	100	99.7	100	75-125	
Methylene Chloride	ug/L	50	44.9	90	75-125	
o-Xylene	ug/L	50	50.7	101	75-125	
Styrene	ug/L	50	44.6	89	75-125	
Tetrachloroethene	ug/L	50	44.4	89	74-125	
Toluene	ug/L	50	47.0	94	75-125	
trans-1,2-Dichloroethene	ug/L	50	45.6	91	74-125	
trans-1,3-Dichloropropene	ug/L	50	50.8	102	75-125	
trans-1,4-Dichloro-2-butene	ug/L	125	122	98	65-125	
Trichloroethene	ug/L	50	47.6	95	75-125	
Trichlorofluoromethane	ug/L	50	44.6	89	73-134	
Vinyl acetate	ug/L	50	47.5	95	40-150	
Vinyl chloride	ug/L	50	41.0	82	75-126	
Xylene (Total)	ug/L	150	150	100	75-125	
1,2-Dichloroethane-d4 (S)	%			92	75-125	
4-Bromofluorobenzene (S)	%			98	75-125	
Dibromofluoromethane (S)	%			98	75-125	
Toluene-d8 (S)	%			96	75-125	

MATRIX SPIKE SAMPLE: 774551

Parameter	Units	10126333001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20.8	104	71-125	
1,1,1-Trichloroethane	ug/L	ND	20	22.8	114	75-125	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20.1	100	75-126	
1,1,2-Trichloroethane	ug/L	ND	20	20.2	101	75-125	
1,1-Dichloroethane	ug/L	ND	20	21.1	105	75-125	
1,1-Dichloroethene	ug/L	ND	20	24.0	120	64-142	
1,2,3-Trichloropropane	ug/L	ND	20	19.9	99	72-127	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	18.3	92	65-125	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20.1	101	75-125	
1,2-Dichlorobenzene	ug/L	ND	20	20.2	101	75-125	
1,2-Dichloroethane	ug/L	ND	20	19.8	99	75-125	
1,2-Dichloropropane	ug/L	ND	20	21.2	106	75-125	
1,3-Dichlorobenzene	ug/L	ND	20	20.9	104	75-125	
1,4-Dichlorobenzene	ug/L	ND	20	20.1	101	75-125	
2-Butanone (MEK)	ug/L	ND	20	16.2	81	51-134	
2-Hexanone	ug/L	ND	20	15.5	77	47-125	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20.4	102	60-135	

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

MATRIX SPIKE SAMPLE: 774551

Parameter	Units	10126333001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	ND	50	31.4	63	30-125	
Acetonitrile	ug/L	ND	200	201	100	59-125	
Benzene	ug/L	ND	20	22.1	111	75-125	
Bromochloromethane	ug/L	ND	20	21.3	106	75-125	
Bromodichloromethane	ug/L	ND	20	20.9	105	72-125	
Bromoform	ug/L	ND	40	42.4	106	51-125	
Bromomethane	ug/L	ND	20	21.7	109	47-130	
Carbon disulfide	ug/L	ND	20	24.1	120	37-141	
Carbon tetrachloride	ug/L	ND	20	22.8	114	61-133	
Chlorobenzene	ug/L	ND	20	21.2	106	75-125	
Chloroethane	ug/L	ND	20	21.0	105	75-132	
Chloroform	ug/L	ND	20	21.3	107	75-125	
Chloromethane	ug/L	ND	20	21.5	107	68-132	
cis-1,2-Dichloroethene	ug/L	ND	20	22.9	114	75-125	
cis-1,3-Dichloropropene	ug/L	ND	20	21.3	106	63-125	
Dibromochloromethane	ug/L	ND	20	20.5	103	62-125	
Dibromomethane	ug/L	ND	20	19.7	98	75-125	
Dichlorodifluoromethane	ug/L	ND	20	23.4	117	65-150	
Ethylbenzene	ug/L	ND	20	23.0	115	75-125	
Iodomethane	ug/L	ND	20	20.8	104	70-130	
m&p-Xylene	ug/L		40	46.1	115	67-125	
Methylene Chloride	ug/L	ND	20	20.0	100	75-125	
o-Xylene	ug/L		20	21.5	107	72-125	
Styrene	ug/L	ND	20	19.0	95	30-134	
Tetrachloroethene	ug/L	ND	20	22.2	111	74-125	
Toluene	ug/L	ND	20	21.8	109	75-125	
trans-1,2-Dichloroethene	ug/L	ND	20	21.2	106	72-125	
trans-1,3-Dichloropropene	ug/L	ND	20	21.3	106	63-125	
trans-1,4-Dichloro-2-butene	ug/L	ND	50	50.0	100	41-127	
Trichloroethene	ug/L	ND	20	21.6	108	58-127	
Trichlorofluoromethane	ug/L	ND	20	23.3	117	73-150	
Vinyl acetate	ug/L	ND	20	27.0	135	50-150	
Vinyl chloride	ug/L	ND	20	22.1	110	75-134	
Xylene (Total)	ug/L	ND	60	67.6	113	75-125	
1,2-Dichloroethane-d4 (S)	%				99	75-125	
4-Bromofluorobenzene (S)	%				96	75-125	
Dibromofluoromethane (S)	%				97	75-125	
Toluene-d8 (S)	%				100	75-125	

SAMPLE DUPLICATE: 774552

Parameter	Units	10126333002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

SAMPLE DUPLICATE: 774552

Parameter	Units	10126333002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1-Dichloroethene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	
Acetonitrile	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon disulfide	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	0.82J		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Iodomethane	ug/L	ND	ND		30	
m&p-Xylene	ug/L		ND	0	30	
Methylene Chloride	ug/L	ND	ND		30	
o-Xylene	ug/L		ND	0	30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	0.34J		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	128	129	1		S3
4-Bromofluorobenzene (S)	%	94	96	1		

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QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

SAMPLE DUPLICATE: 774552

Parameter	Units	10126333002 Result	Dup Result	RPD	Max RPD	Qualifiers
Dibromofluoromethane (S)	%	128	127	1		S3
Toluene-d8 (S)	%	92	91	2		

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

QC Batch: MSV/14262
Analysis Method: EPA 8260
QC Batch Method: EPA 8260
Analysis Description: 8260 MSV
Associated Lab Samples: 10126068003, 10126068004

METHOD BLANK: 774561
Matrix: Water
Associated Lab Samples: 10126068003, 10126068004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	04/16/10 12:01	
1,1,1-Trichloroethane	ug/L	ND	1.0	04/16/10 12:01	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/16/10 12:01	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/16/10 12:01	
1,1-Dichloroethane	ug/L	ND	1.0	04/16/10 12:01	
1,1-Dichloroethene	ug/L	ND	1.0	04/16/10 12:01	
1,2,3-Trichloropropane	ug/L	ND	1.0	04/16/10 12:01	
1,2-Dibromo-3-chloropropane	ug/L	ND	4.0	04/16/10 12:01	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	04/16/10 12:01	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/16/10 12:01	
1,2-Dichloroethane	ug/L	ND	1.0	04/16/10 12:01	
1,2-Dichloropropane	ug/L	ND	1.0	04/16/10 12:01	
1,3-Dichlorobenzene	ug/L	ND	1.0	04/16/10 12:01	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/16/10 12:01	
2-Butanone (MEK)	ug/L	ND	4.0	04/16/10 12:01	
2-Hexanone	ug/L	ND	4.0	04/16/10 12:01	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	4.0	04/16/10 12:01	
Acetone	ug/L	ND	10.0	04/16/10 12:01	
Acetonitrile	ug/L	ND	40.0	04/16/10 12:01	
Benzene	ug/L	ND	1.0	04/16/10 12:01	
Bromochloromethane	ug/L	ND	1.0	04/16/10 12:01	
Bromodichloromethane	ug/L	ND	1.0	04/16/10 12:01	
Bromoform	ug/L	ND	8.0	04/16/10 12:01	
Bromomethane	ug/L	ND	4.0	04/16/10 12:01	
Carbon disulfide	ug/L	ND	1.0	04/16/10 12:01	
Carbon tetrachloride	ug/L	ND	4.0	04/16/10 12:01	
Chlorobenzene	ug/L	ND	1.0	04/16/10 12:01	
Chloroethane	ug/L	ND	1.0	04/16/10 12:01	
Chloroform	ug/L	ND	1.0	04/16/10 12:01	
Chloromethane	ug/L	ND	4.0	04/16/10 12:01	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/16/10 12:01	
cis-1,3-Dichloropropene	ug/L	ND	4.0	04/16/10 12:01	
Dibromochloromethane	ug/L	ND	1.0	04/16/10 12:01	
Dibromomethane	ug/L	ND	4.0	04/16/10 12:01	
Dichlorodifluoromethane	ug/L	ND	1.0	04/16/10 12:01	
Ethylbenzene	ug/L	ND	1.0	04/16/10 12:01	
Iodomethane	ug/L	ND	4.0	04/16/10 12:01	
m&p-Xylene	ug/L	ND	2.0	04/16/10 12:01	
Methylene Chloride	ug/L	0.67J	4.0	04/16/10 12:01	
o-Xylene	ug/L	ND	1.0	04/16/10 12:01	
Styrene	ug/L	ND	1.0	04/16/10 12:01	
Tetrachloroethene	ug/L	ND	1.0	04/16/10 12:01	
Toluene	ug/L	ND	1.0	04/16/10 12:01	

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

METHOD BLANK: 774561 Matrix: Water

Associated Lab Samples: 10126068003, 10126068004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/16/10 12:01	
trans-1,3-Dichloropropene	ug/L	ND	4.0	04/16/10 12:01	
trans-1,4-Dichloro-2-butene	ug/L	ND	10.0	04/16/10 12:01	
Trichloroethene	ug/L	ND	1.0	04/16/10 12:01	
Trichlorofluoromethane	ug/L	ND	1.0	04/16/10 12:01	
Vinyl acetate	ug/L	ND	20.0	04/16/10 12:01	
Vinyl chloride	ug/L	ND	0.40	04/16/10 12:01	
Xylene (Total)	ug/L	ND	3.0	04/16/10 12:01	
1,2-Dichloroethane-d4 (S)	%	101	75-125	04/16/10 12:01	
4-Bromofluorobenzene (S)	%	106	75-125	04/16/10 12:01	
Dibromofluoromethane (S)	%	104	75-125	04/16/10 12:01	
Toluene-d8 (S)	%	100	75-125	04/16/10 12:01	

LABORATORY CONTROL SAMPLE: 774562

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	20.0	100	75-125	
1,1,1-Trichloroethane	ug/L	20	20.1	101	75-125	
1,1,2,2-Tetrachloroethane	ug/L	20	17.7	88	75-125	
1,1,2-Trichloroethane	ug/L	20	19.1	95	75-125	
1,1-Dichloroethane	ug/L	20	20.4	102	75-125	
1,1-Dichloroethene	ug/L	20	21.2	106	69-129	
1,2,3-Trichloropropane	ug/L	20	19.1	96	72-126	
1,2-Dibromo-3-chloropropane	ug/L	20	20.6	103	67-125	
1,2-Dibromoethane (EDB)	ug/L	20	20.6	103	75-125	
1,2-Dichlorobenzene	ug/L	20	19.7	98	75-125	
1,2-Dichloroethane	ug/L	20	19.7	99	75-125	
1,2-Dichloropropane	ug/L	20	20.2	101	75-125	
1,3-Dichlorobenzene	ug/L	20	19.8	99	75-125	
1,4-Dichlorobenzene	ug/L	20	20.0	100	75-125	
2-Butanone (MEK)	ug/L	20	20.1	101	51-134	
2-Hexanone	ug/L	20	18.2	91	53-141	
4-Methyl-2-pentanone (MIBK)	ug/L	20	18.1	90	60-125	
Acetone	ug/L	50	66.9	134	38-125	L0
Acetonitrile	ug/L	200	194	97	67-125	
Benzene	ug/L	20	19.7	98	75-125	
Bromochloromethane	ug/L	20	19.1	96	75-125	
Bromodichloromethane	ug/L	20	20.5	103	75-125	
Bromoform	ug/L	40	40.3	101	68-125	
Bromomethane	ug/L	20	22.4	112	47-129	
Carbon disulfide	ug/L	20	19.5	97	64-125	
Carbon tetrachloride	ug/L	20	19.6	98	59-133	
Chlorobenzene	ug/L	20	19.8	99	75-125	
Chloroethane	ug/L	20	21.7	108	73-132	
Chloroform	ug/L	20	19.7	99	75-125	

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

LABORATORY CONTROL SAMPLE: 774562

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloromethane	ug/L	20	22.1	110	72-125	
cis-1,2-Dichloroethene	ug/L	20	20.2	101	75-125	
cis-1,3-Dichloropropene	ug/L	20	20.4	102	75-125	
Dibromochloromethane	ug/L	20	21.1	106	75-125	
Dibromomethane	ug/L	20	18.9	94	75-125	
Dichlorodifluoromethane	ug/L	20	22.2	111	69-134	
Ethylbenzene	ug/L	20	19.8	99	75-125	
Iodomethane	ug/L	20	22.5	113	70-130	
m&p-Xylene	ug/L	40	40.0	100	75-125	
Methylene Chloride	ug/L	20	20.4	102	75-125	
o-Xylene	ug/L	20	20.5	103	75-125	
Styrene	ug/L	20	20.4	102	75-125	
Tetrachloroethene	ug/L	20	19.7	99	74-125	
Toluene	ug/L	20	19.5	97	75-125	
trans-1,2-Dichloroethene	ug/L	20	20.8	104	74-125	
trans-1,3-Dichloropropene	ug/L	20	20.2	101	75-125	
trans-1,4-Dichloro-2-butene	ug/L	50	47.9	96	65-125	
Trichloroethene	ug/L	20	19.5	98	75-125	
Trichlorofluoromethane	ug/L	20	21.5	108	73-134	
Vinyl acetate	ug/L	20	25.5	127	40-150	
Vinyl chloride	ug/L	20	23.1	116	75-126	
Xylene (Total)	ug/L	60	60.5	101	75-125	
1,2-Dichloroethane-d4 (S)	%			94	75-125	
4-Bromofluorobenzene (S)	%			93	75-125	
Dibromofluoromethane (S)	%			97	75-125	
Toluene-d8 (S)	%			99	75-125	

MATRIX SPIKE SAMPLE: 774607

Parameter	Units	10126428003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	17.8	89	71-125	
1,1,1-Trichloroethane	ug/L	ND	20	18.7	93	75-125	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	16.9	85	75-126	
1,1,2-Trichloroethane	ug/L	ND	20	17.7	89	75-125	
1,1-Dichloroethane	ug/L	ND	20	18.7	93	75-125	
1,1-Dichloroethene	ug/L	ND	20	19.7	98	64-142	
1,2,3-Trichloropropane	ug/L	ND	20	17.3	86	72-127	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	21.2	106	65-125	
1,2-Dibromoethane (EDB)	ug/L	ND	20	17.8	89	75-125	
1,2-Dichlorobenzene	ug/L	ND	20	18.0	90	75-125	
1,2-Dichloroethane	ug/L	ND	20	17.1	85	75-125	
1,2-Dichloropropane	ug/L	ND	20	18.0	90	75-125	
1,3-Dichlorobenzene	ug/L	ND	20	18.2	90	75-125	
1,4-Dichlorobenzene	ug/L	ND	20	18.8	90	75-125	
2-Butanone (MEK)	ug/L	ND	20	24.3	122	51-134	
2-Hexanone	ug/L	ND	20	16.3	82	47-125	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	16.7	84	60-135	

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

MATRIX SPIKE SAMPLE: 774607

Parameter	Units	10126428003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	ND	50	43.4	76	30-125	
Acetonitrile	ug/L	ND	200	138	69	59-125	
Benzene	ug/L	24.4	20	39.0	73	75-125	M0
Bromochloromethane	ug/L	ND	20	16.4	82	75-125	
Bromodichloromethane	ug/L	ND	20	18.1	91	72-125	
Bromoform	ug/L	ND	40	33.8	85	51-125	
Bromomethane	ug/L	ND	20	19.4	97	47-130	
Carbon disulfide	ug/L	ND	20	15.9	80	37-141	
Carbon tetrachloride	ug/L	ND	20	18.8	94	61-133	
Chlorobenzene	ug/L	ND	20	17.4	87	75-125	
Chloroethane	ug/L	ND	20	19.3	96	75-132	
Chloroform	ug/L	ND	20	17.4	87	75-125	
Chloromethane	ug/L	ND	20	21.8	109	68-132	
cis-1,2-Dichloroethene	ug/L	ND	20	17.9	89	75-125	
cis-1,3-Dichloropropene	ug/L	ND	20	17.2	86	63-125	
Dibromochloromethane	ug/L	ND	20	18.1	91	62-125	
Dibromomethane	ug/L	ND	20	16.4	82	75-125	
Dichlorodifluoromethane	ug/L	ND	20	23.9	120	65-150	
Ethylbenzene	ug/L	44.7	20	61.0	82	75-125	
Iodomethane	ug/L	ND	20	22.4	112	70-130	
m&p-Xylene	ug/L		40	167	82	67-125	
Methylene Chloride	ug/L	ND	20	15.8	79	75-125	
o-Xylene	ug/L		20	60.1	92	72-125	
Styrene	ug/L	ND	20	18.2	90	30-134	
Tetrachloroethene	ug/L	ND	20	18.6	93	74-125	
Toluene	ug/L	64.0	20	80.7	83	75-125	
trans-1,2-Dichloroethene	ug/L	ND	20	18.7	94	72-125	
trans-1,3-Dichloropropene	ug/L	ND	20	17.1	86	63-125	
trans-1,4-Dichloro-2-butene	ug/L	ND	50	32.8	66	41-127	
Trichloroethene	ug/L	ND	20	17.5	88	58-127	
Trichlorofluoromethane	ug/L	ND	20	21.8	109	73-150	
Vinyl acetate	ug/L	ND	20	23.3	117	50-150	
Vinyl chloride	ug/L	ND	20	20.9	105	75-134	
Xylene (Total)	ug/L	176	60	227	85	75-125	
1,2-Dichloroethane-d4 (S)	%				105	75-125	
4-Bromofluorobenzene (S)	%				104	75-125	
Dibromofluoromethane (S)	%				102	75-125	
Toluene-d8 (S)	%				100	75-125	

SAMPLE DUPLICATE: 774608

Parameter	Units	10126428004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

SAMPLE DUPLICATE: 774608

Parameter	Units	10126428004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1-Dichloroethene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	
Acetonitrile	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon disulfide	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Iodomethane	ug/L	ND	ND		30	
m&p-Xylene	ug/L		ND	0	30	
Methylene Chloride	ug/L	ND	0.49J		30	
o-Xylene	ug/L		ND	0	30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	103	102	1		
4-Bromofluorobenzene (S)	%	109	105	4		

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

SAMPLE DUPLICATE: 774608

Parameter	Units	10126428004 Result	Dup Result	RPD	Max RPD	Qualifiers
Dibromofluoromethane (S)	%	103	104	1		
Toluene-d8 (S)	%	100	100	1		

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

QC Batch: WET/18730 Analysis Method: EPA 120.1
QC Batch Method: EPA 120.1 Analysis Description: 120.1 Specific Conductance
Associated Lab Samples: 10126068001, 10126068002, 10126068003

METHOD BLANK: 771810 Matrix: Water
Associated Lab Samples: 10126068001, 10126068002, 10126068003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	0.71J	1.0	04/13/10 14:20	

LABORATORY CONTROL SAMPLE: 771811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	1010	101	90-110	

SAMPLE DUPLICATE: 771812

Parameter	Units	10126063001 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	1970	1960	1	20	

SAMPLE DUPLICATE: 771813

Parameter	Units	10126194006 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	329	334	2	20	

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

QC Batch: WET/18728
Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Associated Lab Samples: 10126068001, 10126068002, 10126068003

LABORATORY CONTROL SAMPLE: 771803

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	5	5.0	101	98-102	H6

SAMPLE DUPLICATE: 771801

Parameter	Units	10126063002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.4	6.4	0	3	H6

SAMPLE DUPLICATE: 771802

Parameter	Units	10126194003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	3	H6

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

QC Batch: WET/5927
Analysis Method: SM 4500-S F (2000)
QC Batch Method: SM 4500-S F (2000)
Analysis Description: 4500S2F Sulfide, Iodometric
Associated Lab Samples: 10126068001, 10126068002, 10126068003

METHOD BLANK: 285974
Matrix: Water
Associated Lab Samples: 10126068001, 10126068002, 10126068003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	ND	5.0	04/13/10 09:00	

LABORATORY CONTROL SAMPLE: 285975

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	50	47.2	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 285976 285977

Parameter	Units	10125996001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	50	50	44.8	45.6	89	90	80-120	2	20	

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

QC Batch: WETA/9010
QC Batch Method: EPA 410.4
Analysis Method: EPA 410.4
Analysis Description: 410.4 COD
Associated Lab Samples: 10126068001, 10126068002, 10126068003

METHOD BLANK: 773742
Matrix: Water
Associated Lab Samples: 10126068001, 10126068002, 10126068003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	50.0	04/16/10 10:55	

LABORATORY CONTROL SAMPLE: 773743

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	300	273	91	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773744 773745

Parameter	Units	10125826001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	512	250	250	761	771	100	104	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773746 773747

Parameter	Units	10126390001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	ND	250	250	265	271	99	101	90-110	2	20	

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

QC Batch: WETA/8993
Analysis Method: SM 4500-NO3 H
QC Batch Method: SM 4500-NO3 H
Analysis Description: SM4500NO3-H, NO2 + NO3 pres.
Associated Lab Samples: 10126068001, 10126068002, 10126068003

METHOD BLANK: 771312
Matrix: Water
Associated Lab Samples: 10126068001, 10126068002, 10126068003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.10	04/09/10 16:51	

LABORATORY CONTROL SAMPLE: 771313

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 771314 771315

Parameter	Units	10126054022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	1.5	2.5	2.5	1.7	1.9	7	17	80-120	14	30	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 771316 771317

Parameter	Units	10125822001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	0.60	2.5	2.5	2.8	2.7	89	82	80-120	6	30	

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

QC Batch: WETA/9003
Analysis Method: ASTM D516-02
QC Batch Method: ASTM D516-02
Analysis Description: ASTM D516-9002 Sulfate Water
Associated Lab Samples: 10126068001, 10126068002, 10126068003

METHOD BLANK: 773135
Matrix: Water
Associated Lab Samples: 10126068001, 10126068002, 10126068003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.5	04/14/10 12:31	

LABORATORY CONTROL SAMPLE: 773136

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7.5	7.0	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773137 773138

Parameter	Units	10126031001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	ND	20	20	17.6	17.9	88	90	80-120	2	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773139 773140

Parameter	Units	10126063002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	482	1000	1000	1550	1540	107	106	80-120	1	30	

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QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

QC Batch: WETA/8996 Analysis Method: SM 4500-Cl E
QC Batch Method: SM 4500-Cl E Analysis Description: SM4500Cl-E Chloride
Associated Lab Samples: 10126068001, 10126068002, 10126068003

METHOD BLANK: 771849 Matrix: Water
Associated Lab Samples: 10126068001, 10126068002, 10126068003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	2.0	04/12/10 15:58	

LABORATORY CONTROL SAMPLE: 771850

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	30	31.0	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 771851 771852

Parameter	Units	10126196001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.1	30	30	44.9	45.0	102	103	80-120	0	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 771853 771854

Parameter	Units	10125822003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	51.0	150	150	212	213	107	108	80-120	0	30	

QUALITY CONTROL DATA

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

QC Batch: WETA/9008
Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E
Analysis Description: SM4500CN-E Cyanide
Associated Lab Samples: 10126068001, 10126068002, 10126068003

METHOD BLANK: 773712
Matrix: Water
Associated Lab Samples: 10126068001, 10126068002, 10126068003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	ug/L	ND	10.0	04/16/10 10:44	

LABORATORY CONTROL SAMPLE: 773713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	250	262	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773714 773715

Parameter	Units	10126258001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	ug/L	438	250	250	602	714	66	110	80-120	17	30	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773716 773717

Parameter	Units	10126068002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	ug/L	ND	250	250	172	167	68	66	80-120	2	30	M0

QUALIFIERS

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay
PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

1M	Elevated reporting limit; Sample diluted to 5x due to colormetric interference
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H6	Analysis initiated more than 15 minutes after sample collection.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P4	Sample field preservation does not meet EPA or method recommendations for this analysis.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
Z2	Analyte present in the associated method blank above the detection limit.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 7002 000 OLD LANDFILL
Pace Project No.: 10126068

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10126068001	**BSB-GW-01**	EPA 3510	OEXT/12680	EPA 8082	GCSV/6624
10126068002	**BSB-GW-02**	EPA 3510	OEXT/12680	EPA 8082	GCSV/6624
10126068003	**BSB-GW-04**	EPA 3510	OEXT/12680	EPA 8082	GCSV/6624
10126068001	**BSB-GW-01**	EPA 200.8	MPRP/19964	EPA 200.8	ICPM/8196
10126068001	**BSB-GW-01**	EPA 245.1	MERP/4367	EPA 245.1	MERC/5206
10126068001	**BSB-GW-01**	EPA 8260	MSV/14259		
10126068002	**BSB-GW-02**	EPA 8260	MSV/14259		
10126068003	**BSB-GW-04**	EPA 8260	MSV/14262		
10126068004	**BSB-GW-07**	EPA 8260	MSV/14262		
10126068005	**TRIP BLANK**	EPA 8260	MSV/14259		
10126068001	**BSB-GW-01**	EPA 120.1	WET/18730		
10126068002	**BSB-GW-02**	EPA 120.1	WET/18730		
10126068003	**BSB-GW-04**	EPA 120.1	WET/18730		
10126068001	**BSB-GW-01**	SM 4500-H+B	WET/18728		
10126068002	**BSB-GW-02**	SM 4500-H+B	WET/18728		
10126068003	**BSB-GW-04**	SM 4500-H+B	WET/18728		
10126068001	**BSB-GW-01**	SM 4500-S F (2000)	WET/5927		
10126068002	**BSB-GW-02**	SM 4500-S F (2000)	WET/5927		
10126068003	**BSB-GW-04**	SM 4500-S F (2000)	WET/5927		
10126068001	**BSB-GW-01**	EPA 410.4	WETA/9010		
10126068002	**BSB-GW-02**	EPA 410.4	WETA/9010		
10126068003	**BSB-GW-04**	EPA 410.4	WETA/9010		
10126068001	**BSB-GW-01**	SM 4500-NO3 H	WETA/8993		
10126068002	**BSB-GW-02**	SM 4500-NO3 H	WETA/8993		
10126068003	**BSB-GW-04**	SM 4500-NO3 H	WETA/8993		
10126068001	**BSB-GW-01**	ASTM D516-02	WETA/9003		
10126068002	**BSB-GW-02**	ASTM D516-02	WETA/9003		
10126068003	**BSB-GW-04**	ASTM D516-02	WETA/9003		
10126068001	**BSB-GW-01**	SM 4500-Cl E	WETA/8996		
10126068002	**BSB-GW-02**	SM 4500-Cl E	WETA/8996		
10126068003	**BSB-GW-04**	SM 4500-Cl E	WETA/8996		
10126068001	**BSB-GW-01**	SM 4500-CN-E	WETA/9008		
10126068002	**BSB-GW-02**	SM 4500-CN-E	WETA/9008		
10126068003	**BSB-GW-04**	SM 4500-CN-E	WETA/9008		

Pace Analytical™

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

April 16, 2010

Client Services
Pace Analytical Services, Inc.
1700 Elm Street
Suite 200
Minneapolis, MN 55414

RE: Project 20107298
Project ID: 10126068

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on April 10, 2010. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerly,

Karen H Brown

Karen Brown
karen.brown@pacelabs.com

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Laboratory Certifications

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20107298

Client: PASI Minnesota

Project ID: 10126068

U.S. Dept. of Agriculture Foreign Soil Import S-47270
Pennsylviania Dept. of Env Protection (NELAC) 68-04202
Texas Commission on Env. Quality (NELAC) T104704405-08-TX
Kansas Department of Health and Environment (NELAC) E-10266
Florida Department of Health (NELAC) E87595
Louisiana Dept. of Health and Hospitals (NELAC) LA080013
Louisiana Dept. of Environmental Quality (NELAC/LELAP) 02006

Sample Cross Reference

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20107298

Client: PASI Minnesota

Project ID: 10126068

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
BSB-GW-01	20775581	Water	06-Apr-10 15:57	10-Apr-10 08:30
BSB-GW-02	20775582	Water	07-Apr-10 12:00	10-Apr-10 08:30
BSB-GW-04	20775583	Water	08-Apr-10 10:30	10-Apr-10 08:30

Project: 20107298

Sample Receipt Condition:

All samples were received in accordance with EPA protocol.

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Surrogates:

Surrogate recoveries outside of QC limits are qualified in the surrogate results section.

Pace Analytical™

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Sample Results

Client: PASI Minnesota

Client ID: BSB-GW-01
Project: 20107298
Project ID: 10126068
Site: None
Lab ID: 20775581
Matrix: Water
% Moisture: n/a
Description: None
Prep Level: Water
Batch: 137014
Method: EPA 8270
GCMS SVOAs Dual pH
Collected: 06-Apr-10
Received: 10-Apr-10
Prepared: 12-Apr-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		10.0	2.75		15-Apr-10 20:05 JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99		15-Apr-10 20:05 JAM
120-12-7	Anthracene	1	ND		10.0	2.81		15-Apr-10 20:05 JAM
92-87-5	Benzidine	1	ND		30.0	30.0		15-Apr-10 20:05 JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91		15-Apr-10 20:05 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56		15-Apr-10 20:05 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60		15-Apr-10 20:05 JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60		15-Apr-10 20:05 JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32		15-Apr-10 20:05 JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79		15-Apr-10 20:05 JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40		15-Apr-10 20:05 JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63		15-Apr-10 20:05 JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44		15-Apr-10 20:05 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62		15-Apr-10 20:05 JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63		15-Apr-10 20:05 JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97		15-Apr-10 20:05 JAM
106-48-9	4-Chlorophenol	1	ND		10.0	10.0		15-Apr-10 20:05 JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93		15-Apr-10 20:05 JAM
218-01-9	Chrysene	1	ND		10.0	2.98		15-Apr-10 20:05 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95		15-Apr-10 20:05 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38		15-Apr-10 20:05 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54		15-Apr-10 20:05 JAM
106-46-7	1,4-Dichlorobenzene	1	ND		10.0	2.23		15-Apr-10 20:05 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00		15-Apr-10 20:05 JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68		15-Apr-10 20:05 JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37		15-Apr-10 20:05 JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32		15-Apr-10 20:05 JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45		15-Apr-10 20:05 JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43		15-Apr-10 20:05 JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58		15-Apr-10 20:05 JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41		15-Apr-10 20:05 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52		15-Apr-10 20:05 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10		15-Apr-10 20:05 JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57		15-Apr-10 20:05 JAM

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ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Client: PASI Minnesota

Client ID: BSB-GW-01

Project: 20107298

Project ID: 10126068

Site: None

Lab ID: 20775581

Matrix: Water **% Moisture:** n/a

Description: None

Prep Level: Water **Batch:** 137014

Method: EPA 8270
GCMS SVOAs Dual pH

Collected: 06-Apr-10 **Received:** 10-Apr-10

Prepared: 12-Apr-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
122-66-7	1,2-Diphenylhydrazine	1	ND		10.0	3.50		15-Apr-10 20:05 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0	4.50		15-Apr-10 20:05 JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75		15-Apr-10 20:05 JAM
86-73-7	Fluorene	1	ND		10.0	3.15		15-Apr-10 20:05 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84		15-Apr-10 20:05 JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26		15-Apr-10 20:05 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750		15-Apr-10 20:05 JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878		15-Apr-10 20:05 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24		15-Apr-10 20:05 JAM
78-59-1	Isophorone	1	ND		10.0	2.79		15-Apr-10 20:05 JAM
90-12-0	1-Methylnaphthalene	1	ND		10.0	2.49		15-Apr-10 20:05 JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74		15-Apr-10 20:05 JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97		15-Apr-10 20:05 JAM
TMBT	3&4-Methylphenol	1	ND		10.0	1.27		15-Apr-10 20:05 JAM
91-20-3	Naphthalene	1	ND		10.0	2.59		15-Apr-10 20:05 JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23		15-Apr-10 20:05 JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23		15-Apr-10 20:05 JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95		15-Apr-10 20:05 JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27		15-Apr-10 20:05 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05		15-Apr-10 20:05 JAM
86-30-6	N-Nitrosodiphenylamine	1	ND		10.0	3.10		15-Apr-10 20:05 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40		15-Apr-10 20:05 JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99		15-Apr-10 20:05 JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11		15-Apr-10 20:05 JAM
108-95-2	Phenol	1	ND		10.0	2.88		15-Apr-10 20:05 JAM
129-00-0	Pyrene	1	ND		10.0	3.11		15-Apr-10 20:05 JAM
110-86-1	Pyridine	1	ND		10.0	2.19		15-Apr-10 20:05 JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60		15-Apr-10 20:05 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48		15-Apr-10 20:05 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86		15-Apr-10 20:05 JAM

64 compound(s) reported

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ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Pace Analytical™

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-02
Project: 20107298
Project ID: 10126068
Site: None
Lab ID: 20775582
Matrix: Water
% Moisture: n/a
Description: None
Prep Level: Water
Batch: 137014
Method: EPA 8270
GCMS SVOAs Dual pH
Collected: 07-Apr-10
Received: 10-Apr-10
Prepared: 12-Apr-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		10.0	2.75		15-Apr-10 20:30 JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99		15-Apr-10 20:30 JAM
120-12-7	Anthracene	1	ND		10.0	2.81		15-Apr-10 20:30 JAM
92-87-5	Benzidine	1	ND		30.0	30.0		15-Apr-10 20:30 JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91		15-Apr-10 20:30 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56		15-Apr-10 20:30 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60		15-Apr-10 20:30 JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60		15-Apr-10 20:30 JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32		15-Apr-10 20:30 JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79		15-Apr-10 20:30 JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40		15-Apr-10 20:30 JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63		15-Apr-10 20:30 JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44		15-Apr-10 20:30 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62		15-Apr-10 20:30 JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63		15-Apr-10 20:30 JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97		15-Apr-10 20:30 JAM
106-48-9	4-Chlorophenol	1	ND		10.0	10.0		15-Apr-10 20:30 JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93		15-Apr-10 20:30 JAM
218-01-9	Chrysene	1	ND		10.0	2.98		15-Apr-10 20:30 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95		15-Apr-10 20:30 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38		15-Apr-10 20:30 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54		15-Apr-10 20:30 JAM
106-46-7	1,4-Dichlorobenzene	1	ND		10.0	2.23		15-Apr-10 20:30 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00		15-Apr-10 20:30 JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68		15-Apr-10 20:30 JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37		15-Apr-10 20:30 JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32		15-Apr-10 20:30 JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45		15-Apr-10 20:30 JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43		15-Apr-10 20:30 JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58		15-Apr-10 20:30 JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41		15-Apr-10 20:30 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52		15-Apr-10 20:30 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10		15-Apr-10 20:30 JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57		15-Apr-10 20:30 JAM

Protocol 4/16/2010 18:13:35

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Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-02
Project: 20107298

Project ID: 10126068
Site: None

Lab ID: 20775582
Matrix: Water
% Moisture: n/a

Description: None
Prep Level: Water
Batch: 137014

Method: EPA 8270
GCMS SVOAs Dual pH

Collected: 07-Apr-10
Received: 10-Apr-10

Prepared: 12-Apr-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
122-66-7	1,2-Diphenylhydrazine	1	ND		10.0	3.50		15-Apr-10 20:30 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	8.73	J	10.0	4.50		15-Apr-10 20:30 JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75		15-Apr-10 20:30 JAM
86-73-7	Fluorene	1	ND		10.0	3.15		15-Apr-10 20:30 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84		15-Apr-10 20:30 JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26		15-Apr-10 20:30 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750		15-Apr-10 20:30 JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878		15-Apr-10 20:30 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24		15-Apr-10 20:30 JAM
78-59-1	Isophorone	1	ND		10.0	2.79		15-Apr-10 20:30 JAM
90-12-0	1-Methylnaphthalene	1	ND		10.0	2.49		15-Apr-10 20:30 JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74		15-Apr-10 20:30 JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97		15-Apr-10 20:30 JAM
TMBT	3&4-Methylphenol	1	ND		10.0	1.27		15-Apr-10 20:30 JAM
91-20-3	Naphthalene	1	ND		10.0	2.59		15-Apr-10 20:30 JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23		15-Apr-10 20:30 JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23		15-Apr-10 20:30 JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95		15-Apr-10 20:30 JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27		15-Apr-10 20:30 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05		15-Apr-10 20:30 JAM
86-30-6	N-Nitrosodiphenylamine	1	ND		10.0	3.10		15-Apr-10 20:30 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40		15-Apr-10 20:30 JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99		15-Apr-10 20:30 JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11		15-Apr-10 20:30 JAM
108-95-2	Phenol	1	ND		10.0	2.88		15-Apr-10 20:30 JAM
129-00-0	Pyrene	1	ND		10.0	3.11		15-Apr-10 20:30 JAM
110-86-1	Pyridine	1	ND		10.0	2.19		15-Apr-10 20:30 JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60		15-Apr-10 20:30 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48		15-Apr-10 20:30 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86		15-Apr-10 20:30 JAM

64 compound(s) reported

Protocol 4/16/2010 18:13:35

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MDL denotes method detection limit

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Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
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Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Client: PASI Minnesota

Client ID: BSB-GW-04
Project: 20107298
Project ID: 10126068
Site: None
Lab ID: 20775583
Matrix: Water **% Moisture:** n/a
Description: None
Prep Level: Water **Batch:** 137014
Method: EPA 8270
GCMS SVOAs Dual pH
Collected: 08-Apr-10 **Received:** 10-Apr-10
Prepared: 12-Apr-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		10.0	2.75		15-Apr-10 20:56 JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99		15-Apr-10 20:56 JAM
120-12-7	Anthracene	1	ND		10.0	2.81		15-Apr-10 20:56 JAM
92-87-5	Benzidine	1	ND		30.0	30.0		15-Apr-10 20:56 JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91		15-Apr-10 20:56 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56		15-Apr-10 20:56 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60		15-Apr-10 20:56 JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60		15-Apr-10 20:56 JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32		15-Apr-10 20:56 JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79		15-Apr-10 20:56 JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40		15-Apr-10 20:56 JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63		15-Apr-10 20:56 JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44		15-Apr-10 20:56 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62		15-Apr-10 20:56 JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63		15-Apr-10 20:56 JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97		15-Apr-10 20:56 JAM
106-48-9	4-Chlorophenol	1	ND		10.0	10.0		15-Apr-10 20:56 JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93		15-Apr-10 20:56 JAM
218-01-9	Chrysene	1	ND		10.0	2.98		15-Apr-10 20:56 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95		15-Apr-10 20:56 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38		15-Apr-10 20:56 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54		15-Apr-10 20:56 JAM
106-46-7	1,4-Dichlorobenzene	1	ND		10.0	2.23		15-Apr-10 20:56 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00		15-Apr-10 20:56 JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68		15-Apr-10 20:56 JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37		15-Apr-10 20:56 JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32		15-Apr-10 20:56 JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45		15-Apr-10 20:56 JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43		15-Apr-10 20:56 JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58		15-Apr-10 20:56 JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41		15-Apr-10 20:56 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52		15-Apr-10 20:56 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10		15-Apr-10 20:56 JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57		15-Apr-10 20:56 JAM

Protocol 4/16/2010 18:13:35

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Pace Analytical™

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-04
Project ID: 10126068
Lab ID: 20775583
Description: None
Method: EPA 8270
GCMS SVOAs Dual pH

Project: 20107298
Site: None
Matrix: Water **% Moisture:** n/a
Prep Level: Water **Batch:** 137014
Collected: 08-Apr-10 **Received:** 10-Apr-10
Prepared: 12-Apr-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
122-66-7	1,2-Diphenylhydrazine	1	ND		10.0	3.50		15-Apr-10 20:56 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0	4.50		15-Apr-10 20:56 JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75		15-Apr-10 20:56 JAM
86-73-7	Fluorene	1	ND		10.0	3.15		15-Apr-10 20:56 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84		15-Apr-10 20:56 JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26		15-Apr-10 20:56 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750		15-Apr-10 20:56 JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878		15-Apr-10 20:56 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24		15-Apr-10 20:56 JAM
78-59-1	Isophorone	1	ND		10.0	2.79		15-Apr-10 20:56 JAM
90-12-0	1-Methylnaphthalene	1	ND		10.0	2.49		15-Apr-10 20:56 JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74		15-Apr-10 20:56 JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97		15-Apr-10 20:56 JAM
TMBT	3&4-Methylphenol	1	ND		10.0	1.27		15-Apr-10 20:56 JAM
91-20-3	Naphthalene	1	ND		10.0	2.59		15-Apr-10 20:56 JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23		15-Apr-10 20:56 JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23		15-Apr-10 20:56 JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95		15-Apr-10 20:56 JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27		15-Apr-10 20:56 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05		15-Apr-10 20:56 JAM
86-30-6	N-Nitrosodiphenylamine	1	ND		10.0	3.10		15-Apr-10 20:56 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40		15-Apr-10 20:56 JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99		15-Apr-10 20:56 JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11		15-Apr-10 20:56 JAM
108-95-2	Phenol	1	ND		10.0	2.88		15-Apr-10 20:56 JAM
129-00-0	Pyrene	1	ND		10.0	3.11		15-Apr-10 20:56 JAM
110-86-1	Pyridine	1	ND		10.0	2.19		15-Apr-10 20:56 JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60		15-Apr-10 20:56 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48		15-Apr-10 20:56 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86		15-Apr-10 20:56 JAM

64 compound(s) reported

Protocol 4/16/2010 18:13:35

ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Client: PASI Minnesota

Client ID: BSB-GW-01
Project: 20107298
Project ID: 10126068
Site: None
Lab ID: 20775581
Matrix: Water
% Moisture: n/a
Description: None
Prep Level: Water
Batch: 137106
Method: EPA 8081
8081 Pests Water
Collected: 06-Apr-10
Received: 10-Apr-10
Prepared: 13-Apr-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis	
309-00-2	Aldrin	1	ND		0.0500	0.0198		13-Apr-10 17:14	SPP1
319-84-6	alpha-BHC	1	ND		0.0500	0.0209		13-Apr-10 17:14	SPP1
319-85-7	beta-BHC	1	ND		0.0500	0.0188		13-Apr-10 17:14	SPP1
319-86-8	delta-BHC	1	ND		0.0500	0.0237		13-Apr-10 17:14	SPP1
58-89-9	gamma-BHC (Lindane)	1	ND		0.0500	0.0134		13-Apr-10 17:14	SPP1
5103-71-9	alpha-Chlordane	1	ND		0.0500	0.0179		13-Apr-10 17:14	SPP1
5103-74-2	gamma-Chlordane	1	ND		0.0500	0.0184		13-Apr-10 17:14	SPP1
510-15-6	Chlorobenzilate	1	ND		1.00	0.109		14-Apr-10 15:43	SPP1
72-54-8	4,4'-DDD	1	ND		0.100	0.0147		13-Apr-10 17:14	SPP1
72-55-9	4,4'-DDE	1	ND		0.100	0.0194		13-Apr-10 17:14	SPP1
50-29-3	4,4'-DDT	1	ND		0.100	0.0190		13-Apr-10 17:14	SPP1
2303-16-4	Diallate	1	ND		1.00	0.184		14-Apr-10 15:43	SPP1
60-57-1	Dieldrin	1	ND		0.100	0.0144		13-Apr-10 17:14	SPP1
959-98-8	Endosulfan I	1	ND		0.0500	0.0154		13-Apr-10 17:14	SPP1
33213-65-9	Endosulfan II	1	ND		0.100	0.0135		13-Apr-10 17:14	SPP1
1031-07-8	Endosulfan sulfate	1	ND		0.100	0.0163		13-Apr-10 17:14	SPP1
72-20-8	Endrin	1	ND		0.100	0.0132		13-Apr-10 17:14	SPP1
7421-93-4	Endrin aldehyde	1	ND		0.100	0.0208		13-Apr-10 17:14	SPP1
76-44-8	Heptachlor	1	ND		0.0500	0.0188		13-Apr-10 17:14	SPP1
1024-57-3	Heptachlor epoxide	1	ND		0.0500	0.0134		13-Apr-10 17:14	SPP1
465-73-6	Isodrin	1	ND		0.100	0.00832		14-Apr-10 15:43	SPP1
143-50-0	Kepone	1	ND		1.00	0.127		14-Apr-10 15:43	SPP1
72-43-5	Methoxychlor	1	ND		0.500	0.0186		13-Apr-10 17:14	SPP1
8001-35-2	Toxaphene	1	ND		2.00	0.610		13-Apr-10 17:14	SPP1

24 compound(s) reported

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ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Client: PASI Minnesota

Client ID: BSB-GW-02
Project: 20107298
Project ID: 10126068
Site: None
Lab ID: 20775582
Matrix: Water
% Moisture: n/a
Description: None
Prep Level: Water
Batch: 137106
Method: EPA 8081
8081 Pests Water
Collected: 07-Apr-10
Received: 10-Apr-10
Prepared: 13-Apr-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
309-00-2	Aldrin	1	ND		0.0500	0.0198		13-Apr-10 17:30 SPP1
319-84-6	alpha-BHC	1	ND		0.0500	0.0209		13-Apr-10 17:30 SPP1
319-85-7	beta-BHC	1	ND		0.0500	0.0188		13-Apr-10 17:30 SPP1
319-86-8	delta-BHC	1	ND		0.0500	0.0237		13-Apr-10 17:30 SPP1
58-89-9	gamma-BHC (Lindane)	1	ND		0.0500	0.0134		13-Apr-10 17:30 SPP1
5103-71-9	alpha-Chlordane	1	ND		0.0500	0.0179		13-Apr-10 17:30 SPP1
5103-74-2	gamma-Chlordane	1	ND		0.0500	0.0184		13-Apr-10 17:30 SPP1
510-15-6	Chlorobenzilate	1	ND		1.00	0.109		14-Apr-10 16:00 SPP1
72-54-8	4,4'-DDD	1	ND		0.100	0.0147		13-Apr-10 17:30 SPP1
72-55-9	4,4'-DDE	1	ND		0.100	0.0194		13-Apr-10 17:30 SPP1
50-29-3	4,4'-DDT	1	ND		0.100	0.0190		13-Apr-10 17:30 SPP1
2303-16-4	Diallate	1	ND		1.00	0.184		14-Apr-10 16:00 SPP1
60-57-1	Dieldrin	1	ND		0.100	0.0144		13-Apr-10 17:30 SPP1
959-98-8	Endosulfan I	1	ND		0.0500	0.0154		13-Apr-10 17:30 SPP1
33213-65-9	Endosulfan II	1	ND		0.100	0.0135		13-Apr-10 17:30 SPP1
1031-07-8	Endosulfan sulfate	1	ND		0.100	0.0163		13-Apr-10 17:30 SPP1
72-20-8	Endrin	1	ND		0.100	0.0132		13-Apr-10 17:30 SPP1
7421-93-4	Endrin aldehyde	1	ND		0.100	0.0208		13-Apr-10 17:30 SPP1
76-44-8	Heptachlor	1	ND		0.0500	0.0188		13-Apr-10 17:30 SPP1
1024-57-3	Heptachlor epoxide	1	ND		0.0500	0.0134		13-Apr-10 17:30 SPP1
465-73-6	Isodrin	1	ND		0.100	0.00832		14-Apr-10 16:00 SPP1
143-50-0	Kepone	1	ND		1.00	0.127		14-Apr-10 16:00 SPP1
72-43-5	Methoxychlor	1	ND		0.500	0.0186		13-Apr-10 17:30 SPP1
8001-35-2	Toxaphene	1	ND		2.00	0.610		13-Apr-10 17:30 SPP1

24 compound(s) reported

Protocol 4/16/2010 18:13:37

ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

		Client:	PASI Minnesota		
Client ID:	BSB-GW-04	**Project:**	20107298		
Project ID:	10126068	**Site:**	None		
Lab ID:	20775583	**Matrix:**	Water	**% Moisture:**	n/a
Description:	None	**Prep Level:**	Water	**Batch:**	137106
Method:	EPA 8081 8081 Pests Water	**Collected:**	08-Apr-10	**Received:**	10-Apr-10
		Prepared:	13-Apr-10		

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
309-00-2	Aldrin	1	ND		0.0500	0.0198		13-Apr-10 19:46 SPP1
319-84-6	alpha-BHC	1	ND		0.0500	0.0209		13-Apr-10 19:46 SPP1
319-85-7	beta-BHC	1	ND		0.0500	0.0188		13-Apr-10 19:46 SPP1
319-86-8	delta-BHC	1	ND		0.0500	0.0237		13-Apr-10 19:46 SPP1
58-89-9	gamma-BHC (Lindane)	1	ND		0.0500	0.0134		13-Apr-10 19:46 SPP1
5103-71-9	alpha-Chlordane	1	ND		0.0500	0.0179		13-Apr-10 19:46 SPP1
5103-74-2	gamma-Chlordane	1	ND		0.0500	0.0184		13-Apr-10 19:46 SPP1
510-15-6	Chlorobenzilate	1	ND		1.00	0.109		14-Apr-10 16:17 SPP1
72-54-8	4,4'-DDD	1	ND		0.100	0.0147		13-Apr-10 19:46 SPP1
72-55-9	4,4'-DDE	1	ND		0.100	0.0194		13-Apr-10 19:46 SPP1
50-29-3	4,4'-DDT	1	ND		0.100	0.0190		13-Apr-10 19:46 SPP1
2303-16-4	Diallate	1	ND		1.00	0.184		14-Apr-10 16:17 SPP1
60-57-1	Dieldrin	1	ND		0.100	0.0144		13-Apr-10 19:46 SPP1
959-98-8	Endosulfan I	1	ND		0.0500	0.0154		13-Apr-10 19:46 SPP1
33213-65-9	Endosulfan II	1	ND		0.100	0.0135		13-Apr-10 19:46 SPP1
1031-07-8	Endosulfan sulfate	1	ND		0.100	0.0163		13-Apr-10 19:46 SPP1
72-20-8	Endrin	1	ND		0.100	0.0132		13-Apr-10 19:46 SPP1
7421-93-4	Endrin aldehyde	1	ND		0.100	0.0208		13-Apr-10 19:46 SPP1
76-44-8	Heptachlor	1	ND		0.0500	0.0188		13-Apr-10 19:46 SPP1
1024-57-3	Heptachlor epoxide	1	ND		0.0500	0.0134		13-Apr-10 19:46 SPP1
465-73-6	Isodrin	1	ND		0.100	0.00832		14-Apr-10 16:17 SPP1
143-50-0	Kepone	1	ND		1.00	0.127		14-Apr-10 16:17 SPP1
72-43-5	Methoxychlor	1	ND		0.500	0.0186		13-Apr-10 19:46 SPP1
8001-35-2	Toxaphene	1	ND		2.00	0.610		13-Apr-10 19:46 SPP1

24 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

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Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Organics Quality Control

Batch: 137014
Method: GC/MS Semivolatile Organics
Project: 20107298
Units: ug/L
LCS: 20775662 15-Apr-10 19:39
MS:
MSD:
Original for MS:

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
Acenaphthene	50.0	40.5	81								52-110			Q5
Acenaphthylene	50.0	39.8	80								50-110			Q5
Anthracene	50.0	42.8	86								53-110			Q5
Benzo(a)anthracene	50.0	39.9	80								54-110			Q5
Benzo(b)fluoranthene	50.0	38.7	77								47-113			Q5
Benzo(k)fluoranthene	50.0	41.2	82								49-112			Q5
Benzo(g,h,i)perylene	50.0	40.6	81								41-117			Q5
Benzo(a)pyrene	50.0	41.9	84								49-110			Q5
4-Bromophenylphenyl ether	50.0	46.8	94								47-120			Q5
Butylbenzylphthalate	50.0	39.4	79								47-120			Q5
4-Chloro-3-methylphenol	50.0	38.4	77								35-110			Q5
bis(2-Chloroethoxy)methane	50.0	40.7	81								38-110			Q5
bis(2-Chloroethyl) ether	50.0	38.0	76								47-112			Q5
2-Chloronaphthalene	50.0	38.9	78								52-110			Q5
2-Chlorophenol	50.0	34.6	69								43-110			Q5
4-Chlorophenylphenyl ether	50.0	41.7	84								49-114			Q5
Chrysene	50.0	39.3	79								53-110			Q5
Dibenz(a,h)anthracene	50.0	42.3	85								42-120			Q5
3,3'-Dichlorobenzidine	50.0	41.8	84								21-129			Q5
2,4-Dichlorophenol	50.0	36.7	73								38-110			Q5
Diethylphthalate	50.0	45.0	90								48-118			Q5
2,4-Dimethylphenol	50.0	38.5	77								19-110			Q5
Dimethylphthalate	50.0	42.2	84								50-114			Q5
Di-n-butylphthalate	50.0	44.5	89								50-116			Q5
4,6-Dinitro-2-methylphenol	50.0	39.8	80								34-120			Q5
2,4-Dinitrophenol	50.0	32.2	64								10-133			Q5
2,4-Dinitrotoluene	50.0	39.2	78								47-115			Q5
2,6-Dinitrotoluene	50.0	39.0	78								51-113			Q5
Di-n-octylphthalate	50.0	37.9	76								39-128			Q5
bis(2-Ethylhexyl)phthalate	50.0	39.8	80								45-126			Q5
Fluoranthene	50.0	43.3	87								47-114			Q5
Fluorene	50.0	41.3	83								51-110			Q5
Hexachloro-1,3-butadiene	50.0	42.6	85								32-110			Q5
Hexachlorobenzene	50.0	39.4	79								50-110			Q5
Hexachlorocyclopentadiene	50.0	31.7	64								10-110			Q5
Hexachloroethane	50.0	38.2	76								39-110			Q5
Indeno(1,2,3-cd)pyrene	50.0	42.0	84								43-116			Q5
Isophorone	50.0	40.1	80								39-111			Q5
2-Methylnaphthalene	50.0	39.8	80								40-110			Q5
2-Methylphenol (o-Cresol)	50.0	35.2	70								47-110			Q5
3&4-Methylphenol	50.0	34.4	69								45-110			Q5

* denotes recovery outside of QC limits.
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

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Organics Quality Control

Batch: 137014
Method: GC/MS Semivolatile Organics
Project: 20107298 **LCS:** 20775662 15-Apr-10 19:39
MS:
Units: ug/L **MSD:**
Original for MS:

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
Nitrobenzene	50.0	42.6	85								41-110			Q5
2-Nitrophenol	50.0	35.9	72								36-110			Q5
4-Nitrophenol	50.0	45.9	92								28-128			Q5
N-Nitrosodimethylamine	50.0	40.9	82								40-115			Q5
N-Nitroso-di-n-propylamine	50.0	40.8	82								47-118			Q5
N-Nitrosodiphenylamine	50.0	50.2	100								38-120			Q5
2,2'-Oxybis(1-chloropropane)	50.0	40.1	80								38-120			Q5
Pentachlorophenol	50.0	37.3	75								32-124			Q5
Phenanthrene	50.0	41.7	83								53-110			Q5
Phenol	50.0	38.0	76								42-110			Q5
Pyrene	50.0	36.7	74								46-116			Q5
2,4,5-Trichlorophenol	50.0	34.3	69								46-110			Q5
2,4,6-Trichlorophenol	50.0	36.9	74								46-110			Q5

54 compound(s) reported

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* denotes recovery outside of QC limits.
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

Surrogate Recovery

Batch: 137014 **Project:** 20107298

Method: Water GC/MS Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20775661	137014 BLANK 1		93	90	79	96	86	79		
20775662	137014 LCS 1		96	84	77	93	83	69		
20775581	BSB-GW-01		140	99	82	111	119	100		
20775582	BSB-GW-02	S1	146 *	101	82	107	110	99		
20775583	BSB-GW-04		128	85	70	92	85	73		
	QC limits:		25-145	34-117	10-118	33-120	15-134	24-133		

Sur 1: 2,4,6-Tribromophenol (S)
Sur 2: 2-Fluorobiphenyl (S)
Sur 3: 2-Fluorophenol (S)
Sur 4: Nitrobenzene-d5 (S)
Sur 5: Phenol-d5 (S)
Sur 6: Terphenyl-d14 (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.

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Organics Method Blank

Blank ID: 137014 BLANK 1 **Project:** 20107298

Lab ID: 20775661

Prep Level: Water **Batch:** 137014

Method: Water GC/MS Semivolatile Organics

Prepared: 12-Apr-10

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Analysis
83-32-9	Acenaphthene	1	ND		10.0	2.75	15-Apr-10 19:12 JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99	15-Apr-10 19:12 JAM
120-12-7	Anthracene	1	ND		10.0	2.81	15-Apr-10 19:12 JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91	15-Apr-10 19:12 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56	15-Apr-10 19:12 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60	15-Apr-10 19:12 JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60	15-Apr-10 19:12 JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32	15-Apr-10 19:12 JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79	15-Apr-10 19:12 JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40	15-Apr-10 19:12 JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63	15-Apr-10 19:12 JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44	15-Apr-10 19:12 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62	15-Apr-10 19:12 JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63	15-Apr-10 19:12 JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97	15-Apr-10 19:12 JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93	15-Apr-10 19:12 JAM
218-01-9	Chrysene	1	ND		10.0	2.98	15-Apr-10 19:12 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95	15-Apr-10 19:12 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00	15-Apr-10 19:12 JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68	15-Apr-10 19:12 JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37	15-Apr-10 19:12 JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32	15-Apr-10 19:12 JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45	15-Apr-10 19:12 JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43	15-Apr-10 19:12 JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58	15-Apr-10 19:12 JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41	15-Apr-10 19:12 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52	15-Apr-10 19:12 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10	15-Apr-10 19:12 JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57	15-Apr-10 19:12 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0	4.50	15-Apr-10 19:12 JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75	15-Apr-10 19:12 JAM
86-73-7	Fluorene	1	ND		10.0	3.15	15-Apr-10 19:12 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84	15-Apr-10 19:12 JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26	15-Apr-10 19:12 JAM

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ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

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For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Organics Method Blank

Blank ID: 137014 BLANK 1

Project: 20107298

Lab ID: 20775661

Prep Level: Water

Batch: 137014

Method: Water GC/MS Semivolatile Organics

Prepared: 12-Apr-10

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Analysis
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750	15-Apr-10 19:12 JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878	15-Apr-10 19:12 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24	15-Apr-10 19:12 JAM
78-59-1	Isophorone	1	ND		10.0	2.79	15-Apr-10 19:12 JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74	15-Apr-10 19:12 JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97	15-Apr-10 19:12 JAM
TMBT	3&4-Methylphenol	1	ND		10.0	1.27	15-Apr-10 19:12 JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23	15-Apr-10 19:12 JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23	15-Apr-10 19:12 JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95	15-Apr-10 19:12 JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27	15-Apr-10 19:12 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05	15-Apr-10 19:12 JAM
86-30-6	N-Nitrosodiphenylamine	1	ND		10.0	3.10	15-Apr-10 19:12 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40	15-Apr-10 19:12 JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99	15-Apr-10 19:12 JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11	15-Apr-10 19:12 JAM
108-95-2	Phenol	1	ND		10.0	2.88	15-Apr-10 19:12 JAM
129-00-0	Pyrene	1	ND		10.0	3.11	15-Apr-10 19:12 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48	15-Apr-10 19:12 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86	15-Apr-10 19:12 JAM

54 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Pace Analytical™

Organics Quality Control

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 137106 **Project:** 20107298 **LCS:** 20776007 13-Apr-10 16:57

Method: GC Pesticides/PCBs **MS:**

Units: ug/L **MSD:**

Original for MS:

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
Aldrin	0.500	0.144	29								10-110			Q5
alpha-BHC	0.500	0.373	75								21-132			Q5
beta-BHC	0.500	0.390	78								28-135			Q5
delta-BHC	0.500	0.391	78								26-140			Q5
gamma-BHC (Lindane)	0.500	0.385	77								22-136			Q5
alpha-Chlordane	0.500	0.341	68								24-123			Q5
gamma-Chlordane	0.500	0.321	64								20-123			Q5
4,4'-DDD	0.500	0.389	78								26-136			Q5
4,4'-DDE	0.500	0.308	62								15-110			Q5
4,4'-DDT	0.500	0.335	67								24-119			Q5
Dieldrin	0.500	0.367	73								29-129			Q5
Endosulfan I	0.500	0.262	52								10-114			Q5
Endosulfan II	0.500	0.272	54								10-120			Q5
Endosulfan sulfate	0.500	0.387	77								30-140			Q5
Endrin	0.500	0.463	93								26-167			Q5
Endrin aldehyde	0.500	0.347	69								24-138			Q5
Heptachlor	0.500	0.270	54								10-120			Q5
Heptachlor epoxide	0.500	0.340	68								24-126			Q5
Methoxychlor	0.500	0.445	89								23-160			Q5

19 compound(s) reported

4/16/2010 18:13:42

*** denotes recovery outside of QC limits.**
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

Pace Analytical™

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Surrogate Recovery

Batch: 137106 **Project:** 20107298

Method: Water GC Pesticides/PCBs

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20776006	137106 BLANK 1		62	53	51	52				
20776007	137106 LCS 1		72	70	45	45				
20775581	BSB-GW-01		59	45	45	44				
20775582	BSB-GW-02		69	61	53	58				
20775583	BSB-GW-04		63	48	50	67				
	QC limits:		10-137	10-137	18-119	18-119				

Sur 1: Decachlorobiphenyl (Conf)(S)
Sur 2: Decachlorobiphenyl (S)
Sur 3: Tetrachloro-m-xylene (Conf)(S)
Sur 4: Tetrachloro-m-xylene (S)

---

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.

4/16/2010 18:13:43

Organics Method Blank

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 137106 BLANK 1 **Project:** 20107298

Lab ID: 20776006

Prep Level: Water **Batch:** 137106

Method: Water GC Pesticides/PCBs

Prepared: 13-Apr-10

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Analysis
309-00-2	Aldrin	1	ND		0.0500	0.0198	13-Apr-10 16:40 SPP1
319-84-6	alpha-BHC	1	ND		0.0500	0.0209	13-Apr-10 16:40 SPP1
319-85-7	beta-BHC	1	ND		0.0500	0.0188	13-Apr-10 16:40 SPP1
319-86-8	delta-BHC	1	ND		0.0500	0.0237	13-Apr-10 16:40 SPP1
58-89-9	gamma-BHC (Lindane)	1	ND		0.0500	0.0134	13-Apr-10 16:40 SPP1
5103-71-9	alpha-Chlordane	1	ND		0.0500	0.0179	13-Apr-10 16:40 SPP1
5103-74-2	gamma-Chlordane	1	ND		0.0500	0.0184	13-Apr-10 16:40 SPP1
510-15-6	Chlorobenzilate	1	ND		1.00	0.109	14-Apr-10 15:26 SPP1
72-54-8	4,4'-DDD	1	ND		0.100	0.0147	13-Apr-10 16:40 SPP1
72-55-9	4,4'-DDE	1	ND		0.100	0.0194	13-Apr-10 16:40 SPP1
50-29-3	4,4'-DDT	1	ND		0.100	0.0190	13-Apr-10 16:40 SPP1
2303-16-4	Diallate	1	ND		1.00	0.184	14-Apr-10 15:26 SPP1
60-57-1	Dieldrin	1	ND		0.100	0.0144	13-Apr-10 16:40 SPP1
959-98-8	Endosulfan I	1	ND		0.0500	0.0154	13-Apr-10 16:40 SPP1
33213-65-9	Endosulfan II	1	ND		0.100	0.0135	13-Apr-10 16:40 SPP1
1031-07-8	Endosulfan sulfate	1	ND		0.100	0.0163	13-Apr-10 16:40 SPP1
72-20-8	Endrin	1	ND		0.100	0.0132	13-Apr-10 16:40 SPP1
7421-93-4	Endrin aldehyde	1	ND		0.100	0.0208	13-Apr-10 16:40 SPP1
76-44-8	Heptachlor	1	ND		0.0500	0.0188	13-Apr-10 16:40 SPP1
1024-57-3	Heptachlor epoxide	1	ND		0.0500	0.0134	13-Apr-10 16:40 SPP1
465-73-6	Isodrin	1	ND		0.100	0.00832	14-Apr-10 15:26 SPP1
143-50-0	Kepone	1	ND		1.00	0.127	14-Apr-10 15:26 SPP1
72-43-5	Methoxychlor	1	ND		0.500	0.0186	13-Apr-10 16:40 SPP1
8001-35-2	Toxaphene	1	ND		2.00	0.610	13-Apr-10 16:40 SPP1

24 compound(s) reported

4/16/2010 18:13:44

ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Definitions/Qualifiers

Project: 20107298

Value	Description
Q5	Insufficient sample was provided to perform matrix spike analyses on any sample in this analytical batch. Method performance for this analyte has been demonstrated by the laboratory control sample recovery.
S1	The surrogate recovery was above the QC limit. The data are reported without qualification since the associated target analytes were not detected in the sample.
J	This estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit.
U	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
B	This analyte was detected in the method blank.
E	The sample concentration is above the linear calibrated range of the analysis.
ND	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
MDL	The adjusted method detection limit.
LCS(D)	Laboratory Control Sample (Duplicate).
MS(D)	Matrix Spike (Duplicate).
DUP	Sample Duplicate.
RPD	Relative Percent Difference.

20107298 PASI-MINN

Chain of Custody

Workorder: 10126068 Workorder Name: 7002 000 OLD LANDFILL Owner Received Date: 4/9/2010 Results Requested By: 4/22/2010

Report To	Subcontract To
Julie Thieschafer Pace Analytical Services, Inc. 1700 Elm Street, Suite 200 Minneapolis, MN 55414 Phone (612)607-1700 Fax (612)607-6444	Pace Analytical New Orleans 1000 Riverbend Blvd Suite F St. Rose, LA 70087 Phone (504)469-0333

					Preserved Containers		Requested Analysis		
Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Unpreserved		8081	8270	LAB USE ONLY
1	BSB-GW-01	4/6/2010 15:57	10126068001	Water 4	2		X	X	20775581
2	BSB-GW-02	4/7/2010 12:00	10126068002	Water 4	2		X	X	582
3	BSB-GW-04	4/8/2010 10:30	10126068003	Water 4	2		X	X	583
4				JT 4/9/10					
5									

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	Julie	4/9/10 14:40			
2				4/10/10 0840	
3					

Cooler Temperature on Receipt 2.0 °C	Custody Seal [✓ Y] or N	Received on Ice [✓ Y] or N	Samples Intact [✓ Y] or N

Pace Analytical

1000 Riverbend. Blvd., Suite F
St. Rose, LA 70087

Sample Condition Upon

20107298 PASI-MINN
Project #: 20

Courier: ☐ Pace Courier ☐ Hackbarth ☑ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals Intact: ☐Yes ☑No

Therometer Used:
☐ Therm Fisher IR 1
☐ Therm Fisher IR 2
☑ Therm Fisher IR 3

Type of Ice: [✓ Wet] Blue None

Samples on Ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and initials of person examining contents: TV 4/10/10

Temp must be measured from Temperature blank when present

		Comments:
Temperature Blank Present"?	☑Yes ☐No ☐N/A	1
Chain of Custody Present:	☑Yes ☐No ☐N/A	2
Chain of Custody Complete:	☑Yes ☐No ☐N/A	3
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	4
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	5
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	6
Sufficient Volume:	☑Yes ☐No ☐N/A	7
Correct Containers Used:	☑Yes ☐No ☐N/A	8
Filtered vol. Rec. for Diss. tests	☐Yes ☐No ☑N/A	9
Sample Labels match COC:	☑Yes ☐No ☐N/A	10
All containers received within manafacture's precautionary and/or expiration dates.	☑Yes ☐No ☐N/A	11
All containers needing preservation have been checked (except VOA, coliform, & O&G).	☑Yes ☐No ☐N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	13 If No, was preserative added? ☐Yes ☐No If added record lot no.: HNO3 ______ H2SO4 ______
Samples checked for dechlorination:	☐Yes ☑No ☐N/A	14
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	14
Trip Blank Present:	☐Yes ☑No ☐N/A	16
Trip Blank Custody Seals Present	☐Yes ☑No ☐N/A	17
Pace Trip Blank Lot # (if purchased): N/A		18

Client Notification/ Resolution:

Person Contacted: ______________________ Date/Time: ____________

Comments/ Resolution: ______________________

ALLC003rev.05, 12Jun2009 - mod

Report Number
10-111-2142v2

Midwest Laboratories Inc.®
13611 "B" Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402 334-9121
www.midwestlabs.com

Page 1 of 2

This report supersedes all prior reports for the following reason(s): added comment per client

REPORT OF ANALYSIS

Mail to:
PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

For: (8902) PACE ANALYTICAL
(612)607-6384

PO/Proj. #: 10126068
7002 000 OLD LANDFILL

Date Reported: 04/21/10
Date Received: 04/10/10
Date Sampled: 04/08/10

Lab Number: 1699773 Sample ID: BSB-GW-04 10126068003

Method: EPA 8151 Units: µg/L Analyst: awr Date: 04/21/10

Analysis	Level Found	Detection Limit	Analysis	Level Found	Detection Limit
MCPA	n.d.	100	Dicamba (Banvel)	n.d.	0.1
MCPP (Mecoprop)	n.d.	100	Dichlorprop	n.d.	0.3
2,4,5-TP (Silvex)	n.d.	0.1	Dinoseb	n.d.	0.2
2,4-D	n.d.	0.2	2,4,5-T	n.d.	0.1
2,4-DB	n.d.	0.8	Pentachlorophenol	n.d.	0.1
Dalapon	n.d.	1.3	Tordon (Picloram)		0.2

Notes:
n.d. - Not Detected.
add'l report (DFT).

The result(s) issued on this report only reflect the analysis of the sample(s) submitted. For applicable test parameters, Midwest Laboratories is in compliance with NELAC requirements.

Report Number
10-111-2142

Midwest Laboratories Inc.®
13611 "B" Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402 334-9121
www.midwestlabs.com

Page 2 of 2

REPORT OF ANALYSIS

For: (8902) PACE ANALYTICAL
(612)607-6384

Date Reported: 04/21/10
Date Received: 04/10/10
Date Sampled: 04/08/10

Mail to: PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

PO/Proj. #: 10126068
7002 000 OLD LANDFILL

Lab number: 1699773 Sample ID: BSB-GW-04 10126068003

Analysis	Level Found	Units	Detection Limit	Method	Analyst-Date

Notes:
add'l report (DUAL)
This sample was extracted past allowed holding time.

Respectfully Submitted
Heather Ramig
Heather Ramig
Client Service Representative
heather@midwestlabs.com (402)829-9891

The result(s) issued on this report only reflect the analysis of the sample(s) submitted. For applicable test parameters, Midwest Laboratories is in compliance with NELAC requirements.

Report Number
10-111-2141v2

Midwest Laboratories Inc.®
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Page 1 of 2

This report supersedes all prior reports for the following reason(s): added comment per client

REPORT OF ANALYSIS

For: (8902) PACE ANALYTICAL
(612)607-6384

Mail to:
PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

PO/Proj. #: 10126068
7002 000 OLD LANDFILL

Date Reported: 04/21/10
Date Received: 04/10/10
Date Sampled: 04/07/10

Lab Number: 1699772 Sample ID: BSB-GW-02 10126068002

Method: EPA 8151 Units: µg/L Analyst: awr Date: 04/21/10

Analysis	**Level Found**	**Detection Limit**	**Analysis**	**Level Found**	**Detection Limit**
MCPA	n.d.	100	Dicamba (Banvel)	n.d.	0.1
MCPP (Mecoprop)	n.d.	100	Dichlorprop	n.d.	0.3
2,4,5-TP (Silvex)	n.d.	0.1	Dinoseb	n.d.	0.2
2,4-D	n.d.	0.2	2,4,5-T	n.d.	0.1
2,4-DB	n.d.	0.8	Pentachlorophenol	n.d.	0.1
Dalapon	n.d.	1.3	Tordon (Picloram)		0.2

Notes:
n.d. - Not Detected.
add'l report (DFT).

The result(s) issued on this report only reflect the analysis of the sample(s) submitted. For applicable test parameters, Midwest Laboratories is in compliance with NELAC requirements.

Midwest Laboratories Inc.®
13611 "B" Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402 334-9121
www.midwestlabs.com

Report Number
10-111-2141

Page 2 of 2

REPORT OF ANALYSIS

For: (8902) PACE ANALYTICAL
(612)607-6384

Date Reported: 04/21/10
Date Received: 04/10/10
Date Sampled: 04/07/10

Mail to:

PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

PO/Proj. #: 10126068
7002 000 OLD LANDFILL

Lab number: 1699772 Sample ID: BSB-GW-02 10126068002

Analysis	**Level Found**	**Units**	**Detection Limit**	**Method**	**Analyst-Date**

Notes:
add'l report (DUAL)
This sample was extracted past allowed holding time.

Respectfully Submitted
Heather Ramig
Heather Ramig
Client Service Representative
heather@midwestlabs.com (402)829-9891

The result(s) issued on this report only reflect the analysis of the sample(s) submitted. For applicable test parameters, Midwest Laboratories is in compliance with NELAC requirements.

Report Number
10-111-2140v2

Midwest Laboratories Inc.®
13611 "B" Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402 334-9121
www.midwestlabs.com

Page 1 of 4

This report supersedes all prior reports for the following reason(s): added comment per client

REPORT OF ANALYSIS

For: (8902) PACE ANALYTICAL
(612)607-6384

Mail to:
PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

PO/Proj. #: 10126068
7002 000 OLD LANDFILL

Date Reported: 04/21/10
Date Received: 04/10/10
Date Sampled: 04/06/10

Lab Number: 1699771 Sample ID: BSB-GW-01 10126068001

Analysis	Level Found	Detection Limit	Analysis	Level Found	Detection Limit
Method: EPA 8151 Units: µg/L Analyst: awr Date: 04/21/10					
MCPA	n.d.	100	Dicamba (Banvel)	n.d.	0.1
MCPP (Mecoprop)	n.d.	100	Dichlorprop	n.d.	0.3
2,4,5-TP (Silvex)	n.d.	0.1	Dinoseb	n.d.	0.2
2,4-D	n.d.	0.2	2,4,5-T	n.d.	0.1
2,4-DB	n.d.	0.8	Pentachlorophenol	n.d.	0.1
Dalapon	n.d.	1.3	Tordon (Picloram)		0.2

Notes:
n.d. - Not Detected.
add'l report (DFT).

The result(s) issued on this report only reflect the analysis of the sample(s) submitted. For applicable test parameters, Midwest Laboratories is in compliance with NELAC requirements.

Midwest Laboratories Inc.®
13611 "B" Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402 334-9121
www.midwestlabs.com

Report Number
10-111-2140

REPORT OF ANALYSIS

For: (8902) PACE ANALYTICAL
(612)607-6384

Date Reported: 04/21/10
Date Received: 04/10/10
Date Sampled: 04/06/10

Mail to:

PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

PO/Proj. #: 10126068
7002 000 OLD LANDFILL

Lab number: 1699771 Sample ID: BSB-GW-01 10126068001

Analysis	Level Found	Units	Detection Limit	Method	Analyst-Date

Notes:
add'l report (DUAL)
This sample was extracted past allowed holding time.

Respectfully Submitted

Heather Ramig

Heather Ramig
Client Service Representative
heather@midwestlabs.com (402)829-9891

The result(s) issued on this report only reflect the analysis of the sample(s) submitted. For applicable test parameters, Midwest Laboratories is in compliance with NELAC requirements.

Chain of Custody

1/2

Pace Analytical®
www.pacelabs.com

Workorder: 10126068 Workorder Name: 7002 000 OLD LANDFILL Results Requested 4/22/2010

Report / Invoice To	Subcontract To
Julie Thieschafer Pace Analytical Minnesota 1700 Elm Street Suite 200 Minneapolis, MN 55414 Phone (612)607-1700 Email: julie.thieschafer@pacelabs.com	Midwest Labs P.O. 10126068 13611 B Street Omaha, NE 68144.

					Preserved Containers	Requested Analysis	
Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Unpreserved	8151	LAB USE ONLY
1	BSB-GW-01	4/6/2010 15:57	10126068001	Water	2		2 1699771
2	BSB-GW-02	4/7/2010 12:00	10126068002	Water	2		2 1699772
3	BSB-GW-04	4/8/2010 10:30	10126068003	Water	2		2 1699773
4							
5							

Transfers	Released By	Date/Time	Received By	Date/Time
1		4/9/10 14:45.		
2				
3				
4				
5				

Comments

*see attached list

04-10-10A09:57 RCVD

0.6°C

3

1699771 - 1699773

• please use same list; RL's as before
- lab number 1641852

Compound List

Chlorinated Herbicides
2,4-D
2,4-DB
Dalapon
Dicamba
Dichlorporp
Dinoseb
2,4,5-TP (Silvex)
2,4,5-T
MCPA
MCPP
Pentachlorophenol

3 1699771 - 1699773

add

Chain of Custody

AW

Pace Analytical®
www.pacelabs.com

Workorder: 10126068 Workorder Name: 7002 000 OLD LANDFILL Owner Received Date: 4/9/2010 Results Requested By: 4/22/2010

Report To	Subcontract To
Julie Thieschafer Pace Analytical Services, Inc. 1700 Elm Street, Suite 200 Minneapolis, MN 55414 Phone (612)607-1700 Fax (612)607-6444	Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436

					Preserved Containers	Requested Analysis	
Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Other	Sulfide	LAB USE ONLY
001 1	BSB-GW-01	4/6/2010 15:57	10126068001	Water	1	X	1-500mLp
002 2	BSB-GW-02	4/7/2010 12:00	10126068002	Water	1	X	↓
003 3	BSB-GW-04	4/8/2010 10:30	10126068003	Water	1	X	
4							
5							

Transfers	Released By	Date/Time	Received By	Date/Time
1		4/9/10 14:45	S Waltco	
2	Waltco	4/10/10 0755		4/10/10 0755
3				

Comments

4030451

Cooler Temperature on Receipt 1 °C Custody Seal [✓ Y] or N Received on Ice [✓ Y] or N Samples Intact [✓ Y] or N

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical

Sample Condition Upon Receipt

Client Name: PACE-MN Project # 4030451

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☑ Commercial ☐ Pace Other ______

Tracking #: ______

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None Other

Thermometer Used JB

Cooler Temperature 1°C

Temp Blank Present: ☑ yes ☐ no

Temp should be above freezing to 6°C for all sample except Biota.
Biota Samples should be received ≤ 0°C.

Type of Ice: [✓ Wet] Blue Dry None ☐ Samples on ice, cooling process has begun

Biological Tissue is Frozen: ☐ yes ☐ no

Optional
Proj. Due Date:
Proj. Name:

Person examining contents:
Date: 4/10/10
Initials: HMH

		Comments:
Chain of Custody Present:	☑ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☑ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☑ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☐ Yes ☑ No ☐ N/A	4.
Samples Arrived within Hold Time:	☑ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☑ Yes ☒ No ☐ N/A [illegible]	6. Sulfide sampled 4/6-4/8 BE 4/10/10
Rush Turn Around Time Requested:	☐ Yes ☑ No ☐ N/A	7.
Sufficient Volume:	☑ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☑ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☑ Yes ☐ No ☐ N/A	
Containers Intact:	☑ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☑ No ☐ N/A	11.
Sample Labels match COC:	☑ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑ Yes ☐ No ☐ N/A	13. Sample-003 didn't pH
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☑ No ☐ N/A	supposed to be pH'ed in MN BE 4/10/10
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐ Yes ☐ No	Initial when completed HH 4/10 / Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☑ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☐ No ☑ N/A	15.
Trip Blank Present:	☐ Yes ☑ No ☐ N/A	16.
Trip Blank Custody Seals Present	☐ Yes ☐ No ☑ N/A	
Pace Trip Blank Lot # (if purchased): ______		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: ______ Date/Time: ______

Comments/ Resolution: ______

Project Manager Review: JM **Date:** 4/12/10

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

F-ALL-C-006-Rev.05 (30Oct2009) SCUR Form

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10126068

Page: 1 of 1

1343150

Section A
Required Client Information:

Company: Pioneer Technical
Address: 63 1/2 W. Broadway
Butte, MT. 59701
Email To: Sbisch@pioneer-technical.com
Phone: 406-563-9371 Fax:
Requested Due Date/TAT:

Section B
Required Project Information:

Report To:
Copy To: -Same-
Purchase Order No.:
Project Name: Old Landfill
Project Number: 7002 000

Section C
Invoice Information:

Attention: Gary Keeler
Company Name: BSB Public Works Dept.
Address: 126 W. Granite Butte, MT. 59701
Pace Quote Reference:
Pace Project Manager: Julie Thieschafer
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER MDEQ

Site Location STATE: MT

Section D
Required Client Information

Matrix Codes MATRIX / CODE
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other NaOH/ZnAc	↓Analysis Test↓ Y/N	pH, SC, Cl⁻, SO_4^{-2}	Diss. Metals	Cyanide	COD NO_2/NO_3	Sulfide	8151	8081	8270	8082	8260			Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	BSB-GW-01			4/6/10	1557				16	X	X	X	X	X			X		X	X	X	X	X	X	X	X	X	X				10126068 001
2	BSB-GW-02			4/7/10	1200				15	X	X		X	X			X		X		X	X	X	X	X	X	X	X				002
3	BSB-GW-04			4/8/10	10:30				15	X	X		X	X			X		X		X	X	X	X	X	X	X	X				003
4	BSB-GW-07			4/8/10	11:30				3	X	X		X	X			✓											X				004
5										BH				BH																		
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Brad Hollamon / PTS	4/8/10	15:15	Pace MN	4.9.10	0950	6.0 5.4 6.0	Y	Y	Y

92 of 93

2

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Brad Hollamon
SIGNATURE of SAMPLER: Brad Hollamon
DATE Signed (MM/DD/YY): 04/08/10

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

[redacted]

Pace Analytical Client Name: Pioneer Tech Project # 10126068

[redacted]

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 7955-3467-4856/8717-9843-1106/7955-3467-4188?4 7955-3467-41825

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals Intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other ________ Temp Blank: Yes ✓ No ____

Thermometer Used ~~80344042~~ or [✓ 179425] Type of Ice: [✓ Wet] Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 6.0/5.4/6.0/3.5 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and initials of person examining contents: 4.9.10

Comments:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☐No ☑N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☐Yes ☑No ☐N/A	10. 2 Broken TB upon Arrival
Filtered volume received for Dissolved tests	☐Yes ☐No ☐N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing acid/base preservation have been checked. Noncompliance are noted in 13.	☑Yes ☐No ☐N/A	13. ☑ HNO3 ✓ ☑ H2SO4 ✓ ☑ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	Samp # 001-004
Exceptions: [✓ VOA], Coliform, TOC, Oil and Grease, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 031610-3		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Brad H. Date/Time: 4/9/10

Comments/ Resolution: emailed to see if they want the trip blank ran. Brad said to run them

Project Manager Review: Date: 4/9/10.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR, Inc.

F-L213Rev.00, 05Aug2009

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414

PaceAnalytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

April 22, 2010

Shawn Bisch
PIONEER-MT
307 E. Park Ave
Suite 421
Anaconda, MT 59711

RE: Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

Dear Shawn Bisch:

Enclosed are the analytical results for sample(s) received by the laboratory on April 09, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julie Thieschafer

julie.thieschafer@pacelabs.com
Project Manager

Enclosures

CERTIFICATIONS

Project:	BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.:	10126063

Minnesota Certification IDs

1700 Elm Street SE, Suite 200 Minneapolis, MN 55414
Alaska Certification #: UST-078
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Michigan DEQ Certification #: 9909
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Wisconsin Certification #: 999407970

SAMPLE SUMMARY

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10126063001	**BSB-GW-05**	Water	04/06/10 14:20	04/09/10 09:50
10126063002	**BSB-GW-06**	Water	04/06/10 13:34	04/09/10 09:50
10126063003	**BSB-GW-08**	Water	04/06/10 13:50	04/09/10 09:50
10126063004	**BSB-GW-09**	Water	04/08/10 14:00	04/09/10 09:50

SAMPLE ANALYTE COUNT

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10126063001	**BSB-GW-05**	EPA 200.8	CJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
		ASTM D516-02	KEO	1	PASI-M
		SM 4500-Cl E	KEO	1	PASI-M
10126063002	**BSB-GW-06**	EPA 200.8	CJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
		ASTM D516-02	KEO	1	PASI-M
		SM 4500-Cl E	KEO	1	PASI-M
10126063003	**BSB-GW-08**	EPA 200.8	CJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
		ASTM D516-02	KEO	1	PASI-M
		SM 4500-Cl E	KEO	1	PASI-M
10126063004	**BSB-GW-09**	EPA 200.8	CJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
		ASTM D516-02	KEO	1	PASI-M
		SM 4500-Cl E	KEO	1	PASI-M

PROJECT NARRATIVE

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

Method: **EPA 200.8**
Description: 200.8 MET ICPMS, Dissolved
Client: BPAR-PIONEER-MT
Date: April 22, 2010

General Information:
4 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

Z2: Analyte present in the associated method blank above the detection limit.
- BSB-GW-05 (Lab ID: 10126063001)
- BSB-GW-06 (Lab ID: 10126063002)
- BSB-GW-08 (Lab ID: 10126063003)
- BSB-GW-09 (Lab ID: 10126063004)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/19964

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10126063001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- MS (Lab ID: 773493)
  - Iron, Dissolved
  - Silver, Dissolved
  - Zinc, Dissolved
- MSD (Lab ID: 773494)
  - Iron, Dissolved
  - Silver, Dissolved
  - Zinc, Dissolved

PROJECT NARRATIVE

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

Method: **EPA 200.8**
Description: 200.8 MET ICPMS, Dissolved
Client: BPAR-PIONEER-MT
Date: April 22, 2010

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: MPRP/19964

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 773493)
    - Zinc, Dissolved
- MSD (Lab ID: 773494)
    - Zinc, Dissolved

PROJECT NARRATIVE

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

Method: **EPA 245.1**
Description: 245.1 Mercury, Dissolved
Client: BPAR-PIONEER-MT
Date: April 22, 2010

General Information:
4 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

Method: **EPA 120.1**
Description: 120.1 Specific Conductance
Client: BPAR-PIONEER-MT
Date: April 22, 2010

General Information:
4 samples were analyzed for EPA 120.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: BPAR-PIONEER-MT
Date: April 22, 2010

General Information:
4 samples were analyzed for SM 4500-H+B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated more than 15 minutes after sample collection.
- BSB-GW-05 (Lab ID: 10126063001)
- BSB-GW-06 (Lab ID: 10126063002)
- BSB-GW-08 (Lab ID: 10126063003)
- BSB-GW-09 (Lab ID: 10126063004)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project:	BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.:	10126063

Method: **ASTM D516-02**
Description: ASTM D516-90 Sulfate Water
Client: BPAR-PIONEER-MT
Date: April 22, 2010

General Information:
4 samples were analyzed for ASTM D516-02. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

Method: **SM 4500-Cl E**
Description: SM4500Cl-E Chloride
Client: BPAR-PIONEER-MT
Date: April 22, 2010

General Information:
4 samples were analyzed for SM 4500-Cl E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: WETA/9007

1M: Elevated reporting limit; Sample diluted to 5x due to colorimetric interference
- BSB-GW-05 (Lab ID: 10126063001)
  - Chloride

This data package has been reviewed for quality and completeness and is approved for release.

ANALYTICAL RESULTS

Project: BP OLD LANDFILL/CLARK TAILINGS CLK-1
Pace Project No.: 10126063

Sample: BSB-GW-05 **Lab ID: 10126063001** Collected: 04/06/10 14:20 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Antimony, Dissolved	ND	mg/L	0.00050	0.00016	1	04/15/10 16:38	04/16/10 13:28	7440-36-0	
Arsenic, Dissolved	**0.12**	mg/L	0.00050	0.000062	1	04/15/10 16:38	04/16/10 13:28	7440-38-2	
Barium, Dissolved	**0.023**	mg/L	0.00030	0.000043	1	04/15/10 16:38	04/16/10 13:28	7440-39-3	
Beryllium, Dissolved	**0.00036**	mg/L	0.00020	0.000069	1	04/15/10 16:38	04/16/10 13:28	7440-41-7	
Cadmium, Dissolved	**0.014**	mg/L	0.000080	0.000020	1	04/15/10 16:38	04/16/10 13:28	7440-43-9	
Chromium, Dissolved	**0.0047**	mg/L	0.00050	0.00024	1	04/15/10 16:38	04/16/10 13:28	7440-47-3	
Cobalt, Dissolved	**0.051**	mg/L	0.00050	0.00022	1	04/15/10 16:38	04/16/10 13:28	7440-48-4	
Copper, Dissolved	**0.0044**	mg/L	0.00050	0.00020	1	04/15/10 16:38	04/16/10 13:28	7440-50-8	Z2
Iron, Dissolved	**16.1**	mg/L	0.050	0.0045	1	04/15/10 16:38	04/16/10 13:28	7439-89-6	M0,Z2
Lead, Dissolved	**0.00021**	mg/L	0.00010	0.000020	1	04/15/10 16:38	04/16/10 13:28	7439-92-1	
Nickel, Dissolved	**0.046**	mg/L	0.00050	0.00019	1	04/15/10 16:38	04/16/10 13:28	7440-02-0	
Selenium, Dissolved	ND	mg/L	0.00050	0.00010	1	04/15/10 16:38	04/16/10 13:28	7782-49-2	
Silver, Dissolved	ND	mg/L	0.00050	0.000071	1	04/15/10 16:38	04/16/10 13:28	7440-22-4	M0
Thallium, Dissolved	**0.000058J**	mg/L	0.00010	0.000050	1	04/15/10 16:38	04/16/10 13:28	7440-28-0	
Vanadium, Dissolved	**0.00040**	mg/L	0.00010	0.000050	1	04/15/10 16:38	04/16/10 13:28	7440-62-2	
Zinc, Dissolved	**56.8**	mg/L	1.2	0.32	250	04/15/10 16:38	04/16/10 13:44	7440-66-6	M0
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	ND	mg/L	0.00020	0.000021	1	04/14/10 11:56	04/20/10 10:59	7439-97-6	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**1970**	umhos/cm	1.0	0.50	1		04/13/10 14:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.3**	Std. Units	0.10		1		04/12/10 16:25		H6
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**1050**	mg/L	125	23.5	50		04/14/10 13:02	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**29.1**	mg/L	10.0	1.5	5		04/14/10 15:18	16887-00-6	1M

ANALYTICAL RESULTS

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

CLK-2

Sample: BSB-GW-06 **Lab ID: 10126063002** Collected: 04/06/10 13:34 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Antimony, Dissolved	**0.00028J**	mg/L	0.00050	0.00016	1	04/15/10 16:38	04/16/10 12:42	7440-36-0	
Arsenic, Dissolved	**0.00097**	mg/L	0.00050	0.000062	1	04/15/10 16:38	04/16/10 12:42	7440-38-2	
Barium, Dissolved	**0.019**	mg/L	0.00030	0.000043	1	04/15/10 16:38	04/16/10 12:42	7440-39-3	
Beryllium, Dissolved	ND	mg/L	0.00020	0.000069	1	04/15/10 16:38	04/16/10 12:42	7440-41-7	
Cadmium, Dissolved	**0.0011**	mg/L	0.000080	0.000020	1	04/15/10 16:38	04/16/10 12:42	7440-43-9	
Chromium, Dissolved	**0.00025J**	mg/L	0.00050	0.00024	1	04/15/10 16:38	04/16/10 12:42	7440-47-3	
Cobalt, Dissolved	**0.00032J**	mg/L	0.00050	0.00022	1	04/15/10 16:38	04/16/10 12:42	7440-48-4	
Copper, Dissolved	**0.0055**	mg/L	0.00050	0.00020	1	04/15/10 16:38	04/16/10 12:42	7440-50-8	Z2
Iron, Dissolved	**0.020J**	mg/L	0.050	0.0045	1	04/15/10 16:38	04/16/10 12:42	7439-89-6	Z2
Lead, Dissolved	**0.00021**	mg/L	0.00010	0.000020	1	04/15/10 16:38	04/16/10 12:42	7439-92-1	
Nickel, Dissolved	**0.035**	mg/L	0.00050	0.00019	1	04/15/10 16:38	04/16/10 12:42	7440-02-0	
Selenium, Dissolved	ND	mg/L	0.00050	0.00010	1	04/15/10 16:38	04/16/10 12:42	7782-49-2	
Silver, Dissolved	**0.00013J**	mg/L	0.00050	0.000071	1	04/15/10 16:38	04/16/10 12:42	7440-22-4	
Thallium, Dissolved	ND	mg/L	0.00010	0.000050	1	04/15/10 16:38	04/16/10 12:42	7440-28-0	
Vanadium, Dissolved	**0.0023**	mg/L	0.00010	0.000050	1	04/15/10 16:38	04/16/10 12:42	7440-62-2	
Zinc, Dissolved	**0.66**	mg/L	0.025	0.0064	5	04/15/10 16:38	04/16/10 12:46	7440-66-6	
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	ND	mg/L	0.00020	0.000021	1	04/14/10 11:56	04/20/10 11:03	7439-97-6	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**1740**	umhos/cm	1.0	0.50	1		04/13/10 14:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.4**	Std. Units	0.10		1		04/12/10 16:25		H6
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**482**	mg/L	125	23.5	50		04/14/10 13:14	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**64.3**	mg/L	4.0	0.60	2		04/14/10 15:33	16887-00-6	

ANALYTICAL RESULTS

Project: BP OLD LANDFILL/CLARK TAILINGS cLK-2 Dup
Pace Project No.: 10126063

Sample: BSB-GW-08 **Lab ID: 10126063003** Collected: 04/06/10 13:50 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Antimony, Dissolved	ND	mg/L	0.00050	0.00016	1	04/15/10 16:38	04/16/10 12:50	7440-36-0	
Arsenic, Dissolved	**0.00093**	mg/L	0.00050	0.000062	1	04/15/10 16:38	04/16/10 12:50	7440-38-2	
Barium, Dissolved	**0.018**	mg/L	0.00030	0.000043	1	04/15/10 16:38	04/16/10 12:50	7440-39-3	
Beryllium, Dissolved	ND	mg/L	0.00020	0.000069	1	04/15/10 16:38	04/16/10 12:50	7440-41-7	
Cadmium, Dissolved	**0.0011**	mg/L	0.000080	0.000020	1	04/15/10 16:38	04/16/10 12:50	7440-43-9	
Chromium, Dissolved	**0.00060**	mg/L	0.00050	0.00024	1	04/15/10 16:38	04/16/10 12:50	7440-47-3	
Cobalt, Dissolved	**0.00032J**	mg/L	0.00050	0.00022	1	04/15/10 16:38	04/16/10 12:50	7440-48-4	
Copper, Dissolved	**0.0053**	mg/L	0.00050	0.00020	1	04/15/10 16:38	04/16/10 12:50	7440-50-8	Z2
Iron, Dissolved	**0.027J**	mg/L	0.050	0.0045	1	04/15/10 16:38	04/16/10 12:50	7439-89-6	Z2
Lead, Dissolved	**0.000093J**	mg/L	0.00010	0.000020	1	04/15/10 16:38	04/16/10 12:50	7439-92-1	
Nickel, Dissolved	**0.035**	mg/L	0.00050	0.00019	1	04/15/10 16:38	04/16/10 12:50	7440-02-0	
Selenium, Dissolved	ND	mg/L	0.00050	0.00010	1	04/15/10 16:38	04/16/10 12:50	7782-49-2	
Silver, Dissolved	ND	mg/L	0.00050	0.000071	1	04/15/10 16:38	04/16/10 12:50	7440-22-4	
Thallium, Dissolved	ND	mg/L	0.00010	0.000050	1	04/15/10 16:38	04/16/10 12:50	7440-28-0	
Vanadium, Dissolved	**0.0022**	mg/L	0.00010	0.000050	1	04/15/10 16:38	04/16/10 12:50	7440-62-2	
Zinc, Dissolved	**0.66**	mg/L	0.025	0.0064	5	04/15/10 16:38	04/16/10 12:54	7440-66-6	
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	ND	mg/L	0.00020	0.000021	1	04/14/10 11:56	04/20/10 11:08	7439-97-6	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**1740**	umhos/cm	1.0	0.50	1		04/13/10 14:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.4**	Std. Units	0.10		1		04/12/10 16:25		H6
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**672**	mg/L	62.5	11.8	25		04/14/10 13:04	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**66.1**	mg/L	4.0	0.60	2		04/14/10 15:33	16887-00-6	

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ANALYTICAL RESULTS

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

Field Blank

Sample: BSB-GW-09 **Lab ID: 10126063004** Collected: 04/08/10 14:00 Received: 04/09/10 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Antimony, Dissolved	ND	mg/L	0.00050	0.00016	1	04/15/10 16:38	04/16/10 12:58	7440-36-0	
Arsenic, Dissolved	ND	mg/L	0.00050	0.000062	1	04/15/10 16:38	04/16/10 12:58	7440-38-2	
Barium, Dissolved	**0.000055J**	mg/L	0.00030	0.000043	1	04/15/10 16:38	04/16/10 12:58	7440-39-3	
Beryllium, Dissolved	ND	mg/L	0.00020	0.000069	1	04/15/10 16:38	04/16/10 12:58	7440-41-7	
Cadmium, Dissolved	ND	mg/L	0.000080	0.000020	1	04/15/10 16:38	04/16/10 12:58	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.00050	0.00024	1	04/15/10 16:38	04/16/10 12:58	7440-47-3	
Cobalt, Dissolved	ND	mg/L	0.00050	0.00022	1	04/15/10 16:38	04/16/10 12:58	7440-48-4	
Copper, Dissolved	ND	mg/L	0.00050	0.00020	1	04/15/10 16:38	04/16/10 12:58	7440-50-8	
Iron, Dissolved	**0.0047J**	mg/L	0.050	0.0045	1	04/15/10 16:38	04/16/10 12:58	7439-89-6	Z2
Lead, Dissolved	**0.000024J**	mg/L	0.00010	0.000020	1	04/15/10 16:38	04/16/10 12:58	7439-92-1	
Nickel, Dissolved	ND	mg/L	0.00050	0.00019	1	04/15/10 16:38	04/16/10 12:58	7440-02-0	
Selenium, Dissolved	ND	mg/L	0.00050	0.00010	1	04/15/10 16:38	04/16/10 12:58	7782-49-2	
Silver, Dissolved	ND	mg/L	0.00050	0.000071	1	04/15/10 16:38	04/16/10 12:58	7440-22-4	
Thallium, Dissolved	ND	mg/L	0.00010	0.000050	1	04/15/10 16:38	04/16/10 12:58	7440-28-0	
Vanadium, Dissolved	ND	mg/L	0.00010	0.000050	1	04/15/10 16:38	04/16/10 12:58	7440-62-2	
Zinc, Dissolved	**0.0014J**	mg/L	0.0050	0.0013	1	04/15/10 16:38	04/16/10 12:58	7440-66-6	
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	ND	mg/L	0.00020	0.000021	1	04/14/10 11:56	04/20/10 11:09	7439-97-6	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**1.3**	umhos/cm	1.0	0.50	1		04/13/10 14:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.0**	Std. Units	0.10		1		04/12/10 16:25		H6
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**0.73J**	mg/L	2.5	0.47	1		04/14/10 12:42	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	ND	mg/L	2.0	0.30	1		04/14/10 15:21	16887-00-6	

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QUALITY CONTROL DATA

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

QC Batch: MPRP/19964 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET Dissolved
Associated Lab Samples: 10126063001, 10126063002, 10126063003, 10126063004

METHOD BLANK: 773491 Matrix: Water
Associated Lab Samples: 10126063001, 10126063002, 10126063003, 10126063004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Arsenic, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Barium, Dissolved	mg/L	ND	0.00030	04/16/10 12:33	
Beryllium, Dissolved	mg/L	ND	0.00020	04/16/10 12:33	
Cadmium, Dissolved	mg/L	ND	0.000080	04/16/10 12:33	
Chromium, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Cobalt, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Copper, Dissolved	mg/L	0.00045J	0.00050	04/16/10 12:33	
Iron, Dissolved	mg/L	0.012J	0.050	04/16/10 12:33	
Lead, Dissolved	mg/L	ND	0.00010	04/16/10 12:33	
Nickel, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Selenium, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Silver, Dissolved	mg/L	ND	0.00050	04/16/10 12:33	
Thallium, Dissolved	mg/L	ND	0.00010	04/16/10 12:33	
Vanadium, Dissolved	mg/L	ND	0.00010	04/16/10 12:33	
Zinc, Dissolved	mg/L	ND	0.0050	04/16/10 12:33	

LABORATORY CONTROL SAMPLE: 773492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	.08	0.083	103	85-115	
Arsenic, Dissolved	mg/L	.08	0.081	101	85-115	
Barium, Dissolved	mg/L	.08	0.080	99	85-115	
Beryllium, Dissolved	mg/L	.08	0.082	103	85-115	
Cadmium, Dissolved	mg/L	.08	0.081	101	85-115	
Chromium, Dissolved	mg/L	.08	0.079	99	85-115	
Cobalt, Dissolved	mg/L	.08	0.081	102	85-115	
Copper, Dissolved	mg/L	.08	0.084	104	85-115	
Iron, Dissolved	mg/L	1	1.0	103	85-115	
Lead, Dissolved	mg/L	.08	0.084	106	85-115	
Nickel, Dissolved	mg/L	.08	0.084	104	85-115	
Selenium, Dissolved	mg/L	.08	0.082	103	85-115	
Silver, Dissolved	mg/L	.08	0.083	104	85-115	
Thallium, Dissolved	mg/L	.08	0.083	104	85-115	
Vanadium, Dissolved	mg/L	.08	0.080	100	85-115	
Zinc, Dissolved	mg/L	.08	0.084	105	85-115	

QUALITY CONTROL DATA

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773493 773494

Parameter	Units	10126063001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony, Dissolved	mg/L	ND	.08	.08	0.086	0.087	108	108	70-130	0	20	
Arsenic, Dissolved	mg/L	0.12	.08	.08	0.20	0.20	107	107	70-130	0	20	
Barium, Dissolved	mg/L	0.023	.08	.08	0.11	0.11	104	104	70-130	0	20	
Beryllium, Dissolved	mg/L	0.00036	.08	.08	0.081	0.084	101	105	70-130	4	20	
Cadmium, Dissolved	mg/L	0.014	.08	.08	0.096	0.097	102	104	70-130	1	20	
Chromium, Dissolved	mg/L	0.0047	.08	.08	0.087	0.086	103	102	70-130	1	20	
Cobalt, Dissolved	mg/L	0.051	.08	.08	0.14	0.14	106	106	70-130	0	20	
Copper, Dissolved	mg/L	0.0044	.08	.08	0.089	0.088	105	105	70-130	1	20	
Iron, Dissolved	mg/L	16.1	1	1	18.0	17.8	188	166	70-130	1	20	M0
Lead, Dissolved	mg/L	0.00021	.08	.08	0.088	0.088	110	110	70-130	0	20	
Nickel, Dissolved	mg/L	0.046	.08	.08	0.13	0.13	108	108	70-130	0	20	
Selenium, Dissolved	mg/L	ND	.08	.08	0.085	0.085	106	106	70-130	0	20	
Silver, Dissolved	mg/L	ND	.08	.08	0.052	0.053	65	66	70-130	2	20	M0
Thallium, Dissolved	mg/L	0.000058J	.08	.08	0.087	0.087	109	109	70-130	0	20	
Vanadium, Dissolved	mg/L	0.00040	.08	.08	0.084	0.083	104	103	70-130	1	20	
Zinc, Dissolved	mg/L	56.8	.08	.08	59.8	59.8	3750	3812	70-130	0	20	E,M0

QUALITY CONTROL DATA

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

QC Batch: MERP/4367
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury - Dissolved
Associated Lab Samples: 10126063001, 10126063002, 10126063003, 10126063004

METHOD BLANK: 773055
Matrix: Water
Associated Lab Samples: 10126063001, 10126063002, 10126063003, 10126063004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	ND	0.00020	04/20/10 10:56	

LABORATORY CONTROL SAMPLE: 773056

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	.005	0.0053	107	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773057 773058

Parameter	Units	10126063001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	mg/L	ND	.005	.005	0.0054	0.0054	108	107	85-115	1	20	

QUALITY CONTROL DATA

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

QC Batch: WET/18730 Analysis Method: EPA 120.1
QC Batch Method: EPA 120.1 Analysis Description: 120.1 Specific Conductance
Associated Lab Samples: 10126063001, 10126063002, 10126063003, 10126063004

METHOD BLANK: 771810 Matrix: Water
Associated Lab Samples: 10126063001, 10126063002, 10126063003, 10126063004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	0.71J	1.0	04/13/10 14:20	

LABORATORY CONTROL SAMPLE: 771811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	1010	101	90-110	

SAMPLE DUPLICATE: 771812

Parameter	Units	10126063001 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	1970	1960	1	20	

SAMPLE DUPLICATE: 771813

Parameter	Units	10126194006 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	329	334	2	20	

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QUALITY CONTROL DATA

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

QC Batch: WET/18728
Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Associated Lab Samples: 10126063001, 10126063002, 10126063003, 10126063004

LABORATORY CONTROL SAMPLE: 771803

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	5	5.0	101	98-102	H6

SAMPLE DUPLICATE: 771801

Parameter	Units	10126063002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.4	6.4	0	3	H6

SAMPLE DUPLICATE: 771802

Parameter	Units	10126194003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	3	H6

QUALITY CONTROL DATA

Project:	BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.:	10126063

QC Batch:	WETA/9003	Analysis Method:	ASTM D516-02
QC Batch Method:	ASTM D516-02	Analysis Description:	ASTM D516-9002 Sulfate Water

Associated Lab Samples: 10126063001, 10126063002, 10126063003, 10126063004

METHOD BLANK: 773135 Matrix: Water

Associated Lab Samples: 10126063001, 10126063002, 10126063003, 10126063004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.5	04/14/10 12:31	

LABORATORY CONTROL SAMPLE: 773136

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7.5	7.0	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773137 773138

Parameter	Units	10126031001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	ND	20	20	17.6	17.9	88	90	80-120	2	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773139 773140

Parameter	Units	10126063002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	482	1000	1000	1550	1540	107	106	80-120	1	30	

QUALITY CONTROL DATA

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

QC Batch: WETA/9007
Analysis Method: SM 4500-Cl E
QC Batch Method: SM 4500-Cl E
Analysis Description: SM4500Cl-E Chloride
Associated Lab Samples: 10126063001, 10126063002, 10126063003, 10126063004

METHOD BLANK: 773481
Matrix: Water
Associated Lab Samples: 10126063001, 10126063002, 10126063003, 10126063004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	2.0	04/14/10 15:18	

LABORATORY CONTROL SAMPLE: 773482

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	30	31.4	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773483 773484

Parameter	Units	10126403001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.1	30	30	45.1	45.0	103	103	80-120	0	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773485 773486

Parameter	Units	10126063003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	66.1	30	30	91.9	92.4	86	87	80-120	1	30	

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ACCREDITED IN ACCORDANCE WITH nelac

QUALIFIERS

Project:	BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.:	10126063

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

1M	Elevated reporting limit; Sample diluted to 5x due to colorimetric interference
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H6	Analysis initiated more than 15 minutes after sample collection.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
Z2	Analyte present in the associated method blank above the detection limit.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BP OLD LANDFILL/CLARK TAILINGS
Pace Project No.: 10126063

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10126063001	**BSB-GW-05**	EPA 200.8	MPRP/19964	EPA 200.8	ICPM/8196
10126063002	**BSB-GW-06**	EPA 200.8	MPRP/19964	EPA 200.8	ICPM/8196
10126063003	**BSB-GW-08**	EPA 200.8	MPRP/19964	EPA 200.8	ICPM/8196
10126063004	**BSB-GW-09**	EPA 200.8	MPRP/19964	EPA 200.8	ICPM/8196
10126063001	**BSB-GW-05**	EPA 245.1	MERP/4367	EPA 245.1	MERC/5206
10126063002	**BSB-GW-06**	EPA 245.1	MERP/4367	EPA 245.1	MERC/5206
10126063003	**BSB-GW-08**	EPA 245.1	MERP/4367	EPA 245.1	MERC/5206
10126063004	**BSB-GW-09**	EPA 245.1	MERP/4367	EPA 245.1	MERC/5206
10126063001	**BSB-GW-05**	EPA 120.1	WET/18730		
10126063002	**BSB-GW-06**	EPA 120.1	WET/18730		
10126063003	**BSB-GW-08**	EPA 120.1	WET/18730		
10126063004	**BSB-GW-09**	EPA 120.1	WET/18730		
10126063001	**BSB-GW-05**	SM 4500-H+B	WET/18728		
10126063002	**BSB-GW-06**	SM 4500-H+B	WET/18728		
10126063003	**BSB-GW-08**	SM 4500-H+B	WET/18728		
10126063004	**BSB-GW-09**	SM 4500-H+B	WET/18728		
10126063001	**BSB-GW-05**	ASTM D516-02	WETA/9003		
10126063002	**BSB-GW-06**	ASTM D516-02	WETA/9003		
10126063003	**BSB-GW-08**	ASTM D516-02	WETA/9003		
10126063004	**BSB-GW-09**	ASTM D516-02	WETA/9003		
10126063001	**BSB-GW-05**	SM 4500-Cl E	WETA/9007		
10126063002	**BSB-GW-06**	SM 4500-Cl E	WETA/9007		
10126063003	**BSB-GW-08**	SM 4500-Cl E	WETA/9007		
10126063004	**BSB-GW-09**	SM 4500-Cl E	WETA/9007		

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Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

193945

Page 1 of 1

BP/ARC Project Name: Old Landfill / Clark Tailings
BP/ARC Facility No:
Req Due Date (mm/dd/yy):
Rush TAT: Yes ___ No X
Lab Work Order Number: 10126063

10126063

Lab Name: Pace Analytics, Inc	BP/ARC Facility Address:
Lab Address: 1700 Elm Street St 200 mpls, mn 5541	City, State, ZIP Code: Butte, Mt 5970
Lab PM: Julie thieschafer	Lead Regulatory Agency: MDEQ
Lab Phone: 612-607-1700	California Global ID No.:
Lab Shipping Accnt: 1797-5692-7	Enfos Proposal No:
Lab Bottle Order No: 35967	Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___
Other Info:	Stage: Activity:
BP/ARC EBM: Shannon Dunlap / Trey Harbert	
EBM Phone:	
EBM Email:	

Consultant/Contractor: Pioneer Technical St.
Consultant/Contractor Project No:
Address: 63½ W. Broadway
Consultant/Contractor PM: Shawn Bisch
Phone: 406-563-9371
Email EDD To: sbisch@pioneer-technical.com
Invoice To: BP/ARC X Contractor ___

Report Type & QC Level
Standard ___
Full Data Package ___

				Matrix			No. Containers / Preservative						Requested Analyses			
Lab No.	Sample Description	Date	Time	Soil / Solid	Water / Liquid	Air / Vapor	Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol	pH, SC, Cl⁻, SO_4^{-2}	TDS, TSS, As, Ba, Be metals - Cd, Cr, Cu, Fe	Diss - Pb, Hg, Ni, Se metals Ag, Th, V, Zn	Comments Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.
	~~BSB-GW-01~~	~~4/6/10~~	~~1557~~				~~2~~	~~1~~		~~1~~			~~✓~~	~~✓~~	~~✓~~	JF 4/8/10
	BSB-GW-05	4/6/10	1420				2	1		1			✓	✓	✓	10126063001
	BSB-GW-06	4/6/10	1334				2	1		1			✓	✓	✓	002
	BSB-GW-08	4/6/10	1350				2	1		1			✓	✓	✓	003
	BSB-GW-09	4/8/10	1400				2	1		1			✓	✓	✓	004

25 of 28

Sampler's Name: Brad Hollamon
Sampler's Company: Pioneer Technical Services
Shipment Method: Fed Ex Ship Date: 4/8/10
Shipment Tracking No:

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Brad Hollamon / PTS	4/8/10	1515		4.9.10	0950

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: [✓ Yes] / No | Temp Blank: [✓ Yes] / No | Cooler Temp on Receipt: 5.4 °F/[✓ C] | Trip Blank: Yes / [✓ No] | MS/MSD Sample Submitted: Yes / [✓ No]

Laboratory Copy

Sample Condition Upon Receipt ESI Tech Specs

Pace Analytical

Client Name: Pioneer tech **Project #** 10126063

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other ______

[redacted]

Tracking #: 8717-9843-1106

Custody Seal on Cooler/Box Present: ☑ yes ☐ no **Seals intact:** ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other ______ **Temp. Blank** Yes / No ______

Thermometer Used ~~80344042~~ or 179425 **Type of Ice:** [✓ Wet] Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 5.4 **Biological Tissue is Frozen:** Yes No

Temp should be above freezing ≤ 6°C

Date and Initials of person examining contents: 4.9.10

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☐No ☑N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume: triple volume provided for MS/MSD 4.9.10	~~☑Yes~~ [✓ ☑No] ☐N/A	8.
Correct Containers Used: -Pace Containers Used:	☑Yes ☐No ☐N/A ☑Yes ☐No ☐N/A	9.
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☑Yes ☐No ☐N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	☐Yes ☐No ☐N/A	12.
All containers needing acid/base preservation have been checked.	☑Yes ☐No ☐N/A	13. ☑ HNO3 ☐ H2SO4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	Samp # 001-004
Per method, VOA pH is checked after analysis		Initial when completed: CK Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
3 Trip Blanks Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):______		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Brad H. Date/Time: 4/9/10

Comments/ Resolution: Emailed to verify if they need Cobalt ran. Brad said to run Co

Temp Log: Temp must be maintained at <6 C during login, record temp every 20 mins

Opened time: 1130 Temp: 5.4

Time: 1138 put in cooler

Time: Temp:

Project Manager Review: Date: 4/9/10

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR

Form L210Rev.02, 17Jun2008

Mercury Analysis Log

Minnesota Laboratory

Cal Spike Sol.#: 8062-362
ICV Sol.#: 8062-363

Time In 11:00 AM
Time Out: 1:00 PM

Hot Block (C) : 95.0
Hot Block ID:: 3

Page Number: 6611
Wednesday, April 14, 2010

H2SO4: 3109030
HCL: N/A
HNO3: 1109090
Digestion Tube Lot #: A909LS162

Potassium Persulfate: 8062-346
Potassium Permanganate: 8062-352
Stannous Chloride: 8062-356
Hydroxylamine Hydrochloride: 8062-336

Analyst	Sample ID	Average	Client	Absorbance	Prep. Date	QC Batch	Initial Wt./Vol (g or ml)	Final Vol. (ml)	Project No.	Comments
					4/14/2010					
LSB	773055		Quality Control		4/14/2010	4367	30	30		/
LSB	773056		Quality Control		4/14/2010	4367	30	30		/
LSB	10126063001		BPAR-PIONEER-MT		4/14/2010	4367	30	30	10126063	/
LSB	773057		Quality Control		4/14/2010	4367	30	30		/
LSB	773058		Quality Control		4/14/2010	4367	30	30		/
LSB	10126063002		BPAR-PIONEER-MT		4/14/2010	4367	30	30	10126063	/
LSB	10126063003		BPAR-PIONEER-MT		4/14/2010	4367	30	30	10126063	/
LSB	10126063004		BPAR-PIONEER-MT		4/14/2010	4367	30	30	10126063	/
LSB	10126068001		BPAR-PIONEER-MT		4/14/2010	4367	30	30	10126068	/
LSB	5036532001				4/14/2010	4367	30	30	10126306	/
LSB	5036532002				4/14/2010	4367	30	30	10126306	/
LSB	5036532003				4/14/2010	4367	30	30	10126306	/
	0.0 ppb		Cal Blk				0	30		
	0.2 ppb		Cal 1				0.06	30		
	0.5 ppb		Cal 2				0.15	30		
	1.0 ppb		Cal 3				0.30	30		
	5.0 ppb		Cal 4				1.5	30		
	10 ppb		Cal 5				3.0	30		
	1.0 ppb		ICV/CCV 1				1.0	30		
	0.0 ppb		ICB/CCB 1				0.0	30		
	1.0 ppb		ICV/CCV 2				1.0	30		
	0.0 ppb		ICB/CCB 2				0.0	30		

Peer Review ______________

Metals Digestion Log

Minnesota Laboratory

Temp: 96.0 C
Hot Block ID: 1

ICP Spike Sol. #1: 8074-09 #2: 8074-12 #3: N/A #4: N/A
Spike Vol. #1: 0.2 ML #2: 0.2 ML #3: N/A #4: N/A
Hydrogen Peroxide: N/A Nitric: 1109090 Hydrochloric: N/A
Digestion Tube Lot #: A909LS162

Page Number: 15366
Thursday, April 15, 2010

Analyst	Sample ID	Client	Sample Type	QC Batch	Initial Wt./Vol (g or ml)	Final Vol. (ml)	Project No.	Comments	Method	Prep Date
LSB	10126063001	BPAR-PIONEER-MT	PS	19964	50	50	10126063		2008 WD_P	4/15/2010
LSB	10126063002	BPAR-PIONEER-MT	PS	19964	50	50	10126063		2008 WD_P	4/15/2010
LSB	10126063003	BPAR-PIONEER-MT	PS	19964	50	50	10126063		2008 WD_P	4/15/2010
LSB	10126063004	BPAR-PIONEER-MT	PS	19964	50	50	10126063		2008 WD_P	4/15/2010
LSB	10126068001	BPAR-PIONEER-MT	PS	19964	50	50	10126068		2008 WD_P	4/15/2010
LSB	773491	Quality Control	BLANK	19964	50	50			2008 WD_P	4/15/2010
LSB	773492	Quality Control	LCS	19964	50	50			2008 WD_P	4/15/2010
LSB	773493	Quality Control	MS	19964	50	50			2008 WD_P	4/15/2010
LSB	773494	Quality Control	MSD	19964	50	50			2008 WD_P	4/15/2010

Form I178Rev.00, 25Apr2007

Peer Review ____________

FedEx Express US Airbill

FedEx Tracking Number 8717 9843 1106

Form I.D. No. 0215

MUR12

Sender's Copy

1 From *Please print and press hard.*

Date 4/8/10 Sender's FedEx Account Number 1797-5692-7

Sender's Name Brad Hollamon Phone (406) 782-5177

Company Pioneer Technical Services

Address 63 1/2 W. Broadway Dept./Floor/Suite/Room

City Butte State Mt ZIP 59701

2 Your Internal Billing Reference First 24 characters will appear on invoice.

3 To

Recipient's Name SAMPLE RECEIVING Phone (612) 607-6356

Company PACE ANALYTICAL SVCS INC

Address 1700 ELM ST SE Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

☐ HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

☐ HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

City MINNEAPOLIS State MN ZIP 55414-2485

0417330136

4a Express Package Service * To most locations. *Packages up to 150 lbs.*

☐ FedEx Priority Overnight Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☒ FedEx Standard Overnight Next business afternoon.* Saturday Delivery NOT available.

☐ FedEx First Overnight Earliest next business morning delivery to select locations.*

☐ FedEx 2Day Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx Express Saver Next business afternoon.* Saturday Delivery NOT available.

4b Express Freight Service ** To most locations. *Packages over 150 lbs.*

☐ FedEx 1Day Freight Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

CALL 1.800.332.0807

FedEx 1Day Freight Booking No.

☐ FedEx 2Day Freight Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx 3Day Freight Third business day.** Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

☐ FedEx Envelope* ☐ FedEx Pak* Includes FedEx Small Pak and FedEx Large Pak. ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery NOT available for FedEx Standard Overnight, FedEx Express Saver, or FedEx 3Day Freight.

☐ No Signature Required Package may be left without obtaining a signature for delivery.

☐ Direct Signature Someone at recipient's address may sign for delivery. *Fee applies.*

☐ Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

Does this shipment contain dangerous goods? One box must be checked.

☒ No ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

☐ Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below.

☐ Sender Acct. No. in Section 1 will be billed. ☒ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

FedEx Acct. No. Credit Card No. 1797-5692-7 Exp. Date

Total Packages 4 Total Weight 152 lbs. Total Declared Value† $ ______ .00

†Our liability is limited to $100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

605

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Job(s) Location(s) Old Landfill-Clk-1 & Clk-2 Wells **Date:** 4/6/10

Name of AA or project oversight: Shannon Dunlap/Trey Harbert

SIMOPS or Multi-Crew Activity ☐ Yes ☒ No If yes, describe.
SIMOPS

Has the SIMOPS work plan been communicated to all workforce? ☐ Yes ☒ No

Name of SIMOPS PIC: **Company:**

Does the work activity require an MoC? ☐ Yes ☒ No
If yes, has it been authorized by BP management for start-up? ☐ Yes ☐ No (If No, Stop Work and consult BP management)

Does a valid risk-assessed SOP for this job exist? ☐ Yes ☒ No, See attached TSEA
If yes, have person(s) performing work been trained in that procedure? ☐ Yes ☐ No (If no, conduct TSEA)

List any safety discussion topics covered: Muddy conditions, lifting techniques for water jug

List all jobs to be performed today (Scope of work for Day): Sample GW-wells

Identify if there are any permitted activities and document the permit number: None

Does each job and task have a valid, associated risk assessment assigned to each listed job above? ☒ Yes ☐ No
Have job and task risk assessments been validated on site? ☒ Yes ☐ No
Have newly identified risks been documented in the TSEA? ☒ Yes ☐ No
Has a member of the workforce conducting each task participated in the Risk Assessment for that task? ☒ Yes ☐ No
Have all members of the workforce confirmed understanding of the work scope, hazards, risk controls and mitigation? ☒ Yes ☐ No
Was a competent person involved in this or any other risk assessment pertaining to these tasks? ☒ Yes ☐ No
Has everyone reviewed the current Emergency Response Plan? ☒ Yes ☐ No
Have equipment checks been completed, documented and reviewed ~~by the Performing Authority (PA)?~~? ☒ Yes ☐ No
☐ N/A

(Do not proceed unless the answer to all the above questions is Yes or N/A)

Will any conditions change the muster points for today? ☐ Yes ☒ No If yes, describe and discuss with crew: Landfill Entrance

Post Daily Review:

Best practice/activity(s) observed: ☐ Yes ☒ No (If Yes, describe them) –

Were there any Incidents or First Aid Reports for the day? ☐ Yes ☒ No (If Yes, name them)

Were there any 'Stop Work' interventions? ☐ Yes ☒ No (If Yes, describe them)

Area for improvement Practice/Activity(s) Observed: ☐ Yes ☒ No (If Yes, name them)

Signature Page

I know the hazards:
By signing here, you are stating the following:

1. You have been involved in the Task Safety Environmental Analysis and understand the hazards and risk control actions associated with each task you are about to perform.
2. You understand the permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
3. You are aware that no tasks or work (that is not risk-assessed) is to be performed.
4. You also are aware of your obligation to '**Stop Work**' *(See Stop Work Section).*

I arrived and departed fit for duty:

5. You are physically and mentally fit for duty.
6. You are not under the influence of any type of medication, drugs or alcohol that could affect your ability to work safely.
7. You are aware of your responsibility to bring any illness, injury, (regardless of where or when it occurred) or fatigue issue you may have to the attention of the ~~Issuing Authority.~~ Work Crew Leader.
8. You signed out uninjured unless you have otherwise informed the ~~Issuing Authority.~~ Work Crew Leader.

SIMOPS NOTE
SIGNATURES ARE REQUIRED BY ALL PERSONS INVOLVED IN A WORK TASK OR WHO MAY BECOME AFFECTED BY A SIMOPS SITUATION.

Individual Name/Company Name/Signature	Initials & Sign In time	Initials & Sign out Time
Julie Flammang / PTS / Julie Flammang	[✓ In] & Fit 1300	[✓ Out] & Fit 1650
Brad Hollamon / PTS / Brad Hollamon	[✓ In] & Fit BH 1300	[✓ Out] & Fit BH 1650
	In & Fit	Out & Fit
	In & Fit	Out & Fit
	In & Fit	Out & Fit
	In & Fit	Out & Fit
	In & Fit	Out & Fit
	In & Fit	Out & Fit
	In & Fit	Out & Fit
	In & Fit	

I will STOP the job any time anyone is concerned or uncertain about safety.

I will STOP the job if anyone identifies a hazard or additional mitigation not recorded on the TSEA.

I will be alert to any changes in personnel, conditions at the work site or hazards not covered by the original TSEA.

If it is necessary to **STOP THE JOB**, I will reassess the task, hazards and mitigations; and then amend the TSEA as needed.

STOP

Names of site visitors not involved in the work activities:

In / Out

In / Out

In / Out

In / Out

In / Out

At the conclusion of the day, I certify that the job site is being left in a safe condition and there were no reports of injury or first aid.

☒ Yes ☐ No

Signature of Work Crew Leader:

~~**(If not, inform the Person In Charge/Issuing Authority)**~~**(if no, inform the AA or PO, when applicable)**

[redacted]

Definitions: **Project** – A planned set of interrelated jobs to be executed over a period of time. **Job** – A general activity, including several different tasks that occur when working on a project. **Task** – One of several potential specific actions that occur as part of the process to complete a job. **Hazard** - The potential for an uncontrolled release of, or unwanted contact with, a biological or energy source.

VEHICLE INSPECTION

FREQUENCY: Pool vehicles – inspect prior to usage
Light duty vehicles – inspect once a week

Date: 4/6/10 Time: 1300 Unit # 16 Mileage/ Hrs: ____________

	Good	Need Repair	N/A
Glass condition	☑	☐	☐
Gasoline or Diesel	☒	☐	☐
Headlights, high and low beam	☒	☐	☐
Tail lights	☒	☐	☐
Brake lights	☒	☐	☐
Turn signals	☒	☐	☐
Backup lights	☒	☐	☐
Brake condition	☒	☐	☐
Fire extinguisher condition	☒	☐	☐
Engine oil	☒	☐	☐
Transmission fluid	☒	☐	☐
Brake fluid	☒	☐	☐
Cooling system fluid	☒	☐	☐
Windshield wipers	☒	☐	☐
Exhaust system	☒	☐	☐
Tire condition	☒	☐	☐
Spare tire	☒	☐	☐
Vehicle clean	☐	☒	☐
New body damage	☒	☐	☐

Defects and repairs needed: ____________

General safety condition: ____________

Operator's signature: Julie Flammang

TASK SAFETY ENVIRONMENTAL ANALYSIS

Document Control Number________________

Page 1 of 1

Date Form Completed: 4/6/10	Person competent in hazard recognition: Brad Wollamon / J.Flammang
Work location: Old Landfill	Person competent in the Task Safety Environmental Analysis (TSEA) process: B. Wollamon / J. Flammang
State the Job: Sample GW wells CLK-1, CLK-2	Member of the workforce participating in the TSEA: Above

Definition of a Hazard: The potential for an uncontrolled release of, or unwanted contact with, a biological or energy source.

Activity/Sequence of Job Tasks List all tasks required to perform a job in the sequence they are carried out. **NOTE:** IF a valid and accurate TSEA or SOP already exists in an acceptable format that meets the RM requirements for hazard recognition and participation, then simply note it below and attach it to this form and the signature page.	**Energy or Biological Sources** (circle all that apply)	**What** would be the result of exposure to a biological or energy source? (e.g., slip, trip, fall, exposure, electrocution, injury, death, etc.). **How, where, or when** could an uncontrolled release or unwanted contact with a biological or energy source occur? **Environmental Impacts** Could there be a release to the air, soil or water? Will a waste be generated?	**Energy/Biological/Waste Management Plan** Eliminate - Control - Protect **Risk Control Measures** List control measures required to eliminate, control or protect against unwanted contact with an uncontrolled biological or energy source to minimize the risk of injury or environmental impact. Include identification of 'Stop Work' triggers.	**Who is responsible?** Write the name of the person responsible for implementing the control measure identified.
Drive to Site	[✓ Motion] Gravity [✓ Chemical] Radiation Electrical Heat/Cold [✓ Biological] [✓ Pressure]	Accident Truck breakdown Truck Spill	Defensive Driving Vehicle Inspection	Driver
Unload Equipment	[✓ Motion] [✓ Gravity] Chemical Radiation Electrical [✓ Heat/Cold] Biological Pressure	Slip Trips & Falls - Opening Hood Carrying Equipment - Back Injury Wind - Hypothermia Dropping & Pinch Pts	Check site for obstacles upon arrival, carry appropriate loads, lift appropriately, keep truck running for warmth	
Set Up Equipment	[✓ Motion] [✓ Gravity] Chemical Radiation [✓ Electrical] [✓ Heat/Cold] [✓ Biological] Pressure	Drop Equipment Wind - Attaching Battery leads Contaminated Equipment	Appropriate PPE - Awareness when attaching leds Wind direction blaked	
Sample	[✓ Motion] [✓ Gravity] [✓ Chemical] Radiation [✓ Electrical] [✓ Heat/Cold] [✓ Biological] Pressure	Acid burns fom HNO_3 Cont water from well	Appropriate PPE, Awareness	
Decon Equipment	[✓ Motion] [✓ Gravity] Chemical Radiation [✓ Electrical] [✓ Heat/Cold] [✓ Biological] Pressure	Lifting jugs - Attaching leads Pulling pumps - ~~Be~~ Cont water	Proper lifting techniques	
Leave Site	Motion Gravity Chemical Radiation Electrical Heat/Cold Biological Pressure	See Drive to Site	See Drive to Site	
	Motion Gravity Chemical Radiation Electrical Heat/Cold Biological Pressure			

Doc C ol Number: ______________________

Rev. 2(02/03/2010)

ISOLATION CONTROL REGISTER

Job Description:	**Date:** ____________	**Associated Permits numbers:** ____________
Issuing authority (ICR Coordinator):	**Performing Authority:**	

No.	Isolation Description	LTI	L	B	D	Isolation Type: E/P	Lock Box No.	Tag No.	PA Initials	IA Initials	Temporary De-Isolate	PA/IA Initial	Re-Isolate	PA/IA Initials	De-Isolation or Further Isolation (Page no. below)
1.															
2.															
3.															
4.															
5.															
6.															

L: Lock Only B: Blind D: Disconnect E: Electrical P: Process LTI: Long-term Isolation

ELECTRICAL ISOLATION

Where high voltage or high-energy low voltage is involved, the signature of the authorized electrical person or supervisor is required.

Date: ____________ Time: ____________

Signature: ____________

LOCKOUT/TAGOUT FULLY IMPLEMENTED

The isolation(s) on this certificate have been fully implemented.

Date: ____________ Time: ____________

Signature: ____________

LONG-TERM ISOLATION*

The permit for which this isolation certificate was issued was cancelled. Long-term isolations, shown above, remain (Indicate remaining isolations with the 'LTI' entry in appropriate box.)

Date: ____________ Time: ____________

Signature: ____________

LOCKOUT/TAGOUT FULLY REMOVED

All isolations on this certificate number have been removed.

Date: ____________ Time: ____________

Signature: ____________

SYSTEM CHECKED

All valves, switches and controls have been checked for correct positions and settings.

Date: ____________ Time: ____________

Signature: ____________

*LONG-TERM ISOLATIONS (LTIS) ARE ANY ISOLATION(S) THAT WILL LAST BEYOND THE SHIFT DURING WHICH THE JOB WAS INITIATED.

Pace Analytical®

BOTTLE ORDER # 35967

3/22/2010 3:28:22 PM

Pace Analytical Services, Inc.
1700 Elm Street
Ste 200
Minneapolis, MN 55414
(612) 607-1700

Contact: Brad Hollamon
Company: Pioneer Technical Services
Address: 63 1/2 West Broadway
City, St, Zip: Butte, MT, 59701
Phone: (406) 490-7678 **Ext.**
Initiator: Julie Thieschafer **PM:** JMT

Ship To:
Contact: Brad Hollamon
Company: Pioneer Technical Services
Address: 63 1/2 West Broadway
City, St, Zip: Butte, MT, 59701
Phone: (406) 490-7678 **Ext.**

Return To:
Contact:
Lab Name: PACE - MN
Address: 1700 Elm Street
Ste 200
City, St, Zip: Minneapolis, MN, 55414
Phone: (612) 607-1700 **Ext.**

Proj. Description: Old Landfill/Clark Tailing **Quote Number:** **Profile Number:**
Needs Bottles by: 03/26/201 - PM **Expected Date Ret:** **Shipping Method:** FedEx

Return Shipping Labels
☐ No Shipper #
☑ With Shipper #

COC's
☑ Blank # 2
☐ Preprinted

Bottle Labels
☐ Blank
☐ Pre-Printed - With Sample IDs
☑ Pre-Printed - No Sample IDs

Bottles
☐ Boxed Cases
☑ Individually Wrapped
☐ Grouped By Sample ID / Matrix

Misc
☐ Sampling Instructions
☑ Custody Seal
☑ Temp. Blanks
☑ Coolers:
☐ Extra Bubble Wrap
☐ 10 mL Cut-Off Syringes
☐ Short Hold / Rush Stickers
☐ DI Water 0 Liter(s)

Trip Blank ☑

Qty	Total	Matrix	Method	BottleType	LotNumber	Note
8	8	Water	Specific Conduct./pH/Chloride/SO4	1 L plastic unpres.		
4	4	Water	Cyanide, total by SM 4500 CNC	250mL plastic NaOH		
4	4	Water	COD by 410.4 + NO2/NO3	250mL plastic H2SO4		
4	4	Water	Sulfide	500mL plastic NaOH and Zinc Acetate		GB
5	5	Water	Dissolved Metals	250mL plastic HNO3		
4	8	Water	Chlorinated Herbicides	2-1L amber glass unpres.		Midwest Lab
4	8	Water	Organochlorine Pesticides by 8081	2-1L amber glass unpres.		New Orleans
4	8	Water	SVOC by 8270	2-1L amber glass unpres.		New Orleans

Notes: trip blanks (2)
1 BP COC and 1 Pace COC

Hazard Shipping Placard In Place : YES

*Sample receiving hours are Monday through Friday 8:00 am to 6:00 pm and Saturday from 9:00 am to 12:00 pm unless special arrangements are made with you project manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage and disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to insure proper billing.

Shipped Date: 3 24 10
Shipped By:
Verified By:

Pace Analytical®

BOTTLE ORDER # 35967

3/22/2010 3:28:22 PM

Pace Analytical Services, Inc.
1700 Elm Street
Ste 200
Minneapolis,MN 55414
(612) 607-1700

Contact: Brad Hollamon
Company: Pioneer Technical Services
Address: 63 1/2 West Broadway
City, St, Zip: Butte ,MT,59701
Phone: (406) 490-7678 **Ext.**
Initiator: Julie Thieschafer **PM:** JMT

Ship To:
Contact: Brad Hollamon
Company: Pioneer Technical Services
Address: 63 1/2 West Broadway
City, St, Zip: Butte ,MT ,59701
Phone: (406) 490-7678 **Ext.**

Return To:
Contact:
Lab Name: PACE - MN
Address: 1700 Elm Street
Ste 200
City, St, Zip: Minneapolis ,MN ,55414
Phone: (612) 607-1700 **Ext.**

Proj. Description: Old Landfill/Clark Tailing **Quote Number:** **Profile Number:**
Needs Bottles by: 03/26/201 - PM **Expected Date Ret:** **Shipping Method:** FedEx

Return Shipping Labels
☐ No Shipper #
☑ With Shipper #

COC's
☑ Blank # 2
☐ Preprinted

Bottle Labels
☐ Blank
☐ Pre-Printed - With Sample IDs
☑ Pre-Printed - No Sample IDs

Bottles
☐ Boxed Cases
☑ Individually Wrapped
☐ Grouped By Sample ID / Matrix

Misc
☐ Sampling Instructions
☑ Custody Seal
☑ Temp. Blanks
☑ Coolers:
☐ Extra Bubble Wrap
☐ 10 mL Cut-Off Syringes
☐ Short Hold / Rush Stickers
☐ DI Water 0 Liter(s)

Trip Blank ☑

4	8	Water	PCBs by 8082	2-1L amber glass unpres.		MN
4	12	Water	VOC by 8260	3-40ml clear vial HCl		

Notes: trip blanks (2)
1 BP COC and 1 Pace COC

Hazard Shipping Placard In Place : YES

*Sample receiving hours are Monday through Friday 8:00 am to 6:00 pm and Saturday from 9:00 am to 12:00 pm unless special arrangements are made with you project manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage and disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to insure proper billing.

Shipped Date:
Shipped By:
Verified By:

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1343150

Section A
Required Client Information:

Company:	Pioneer Technical
Address:	612 W. Broadway Butte, MT, 59701
Email To:	[illegible]@pioneer-technical.com
Phone: 406-563-9371	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	
Copy To:	- Same -
Purchase Order No.:	
Project Name:	Old Landfill
Project Number:	4002 000

Section C
Invoice Information:

Attention:	Gary Keeler
Company Name:	BSB Public Works Dept.
Address:	155 W. Granite Butte, MT, 59701
Pace Quote Reference:	
Pace Project Manager:	Jule Theschafer
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER MDEQ

Site Location
STATE: MT

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other NaOH/ZnAc
1	BSB-GW-01			4/6/10	1557				16	X	X	X	X	X			X
2	BSB-GW-02			4/7/10	1200				15	X	X		X	X			X
3	BSB-GW-04			4/8/10	10:30				15	X	X		X	X			X
4	BSB-GW-07			4/8/10	11:20				3	~~X~~	~~X~~		X	~~X~~			X
5										RW				RW			
6																	
7																	
8																	
9																	
10																	
11																	
12																	

Requested Analysis Filtered (Y/N)

ITEM #	↓Analysis Test↓ Y/N	pH, SC, Cl, SO4	Diss. Metals	Cyanide	COD, NO2/NO3	Sulfide	8015	8081	8270	8082	8260			Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1		X	X	X	X	X	X	X	X	X	X				
2		X		X	X	X	X	X	X	X	X				
3		X		X	X	X	X	X	X	X	X				
4											X				
5															
6															
7															
8															
9															
10															
11															
12															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Brad Holloway / PTC	4/8/10	15:15							
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

4

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brad Holloway

SIGNATURE of SAMPLER: Brad Holloway

DATE Signed (MM/DD/YY): 04/08/10

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

Page 1 of 1

BP/ARC Project Name: Old Landfill Clark Tailings
Req Due Date (mm/dd/yy):
Rush TAT: Yes ___ No X
BP/ARC Facility No:
Lab Work Order Number:

Lab Name: Pace Analytics, Inc	BP/ARC Facility Address:	Consultant/Contractor: Pioneer Technical S
Lab Address: 1700 Elm Street St 200 mpls mn 55414	City, State, ZIP Code: Butte, MT 59701	Consultant/Contractor Project No:
Lab PM: Julie Thieschafer	Lead Regulatory Agency: MDEQ	Address: 63 1/2 W. Broadway
Lab Phone: 612 607-1700	California Global ID No.:	Consultant/Contractor PM: Shawn Bisch
Lab Shipping Accnt: 1797-5692-7	Enfos Proposal No:	Phone: 406-563-9371
Lab Bottle Order No: 35967	Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___	Email EDD To: sbisch@pioneer-technical.com
Other Info:	Stage: Activity:	Invoice To: BP/ARC X Contractor ___
BP/ARC EBM: Shannon Dunlap/Trey Harbert		
EBM Phone:		
EBM Email:		

Report Type & QC Level
Standard ___
Full Data Package ___

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Matrix	Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol		pH, SC, Cl-, SO4 -2	TDS/TSS, As, Ba, Be, Metals: Cd, Cr, Cu, Fe	Diss: Pb, Mn, Ni, Se, Metals Ag, Tl, Zn								Comments
	~~BSB-GW-01~~	~~4/6/10~~	~~1557~~					~~2~~	~~1~~		~~1~~				~~✓~~	~~✓~~	~~✓~~								F 4/8/10
	BSB-GW-05	4/6/10	1420					2	1		1				✓	✓	✓								
	BSB-GW-06	4/6/10	1334					2	1		1				✓	✓	✓								
	BSB-GW-08	4/6/10	1350					2	1		1				✓	✓	✓								
	BSB-GW-09	4/8/10	1400					2	1		1				✓	✓	✓								

Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.

Sampler's Name: Brad Hollamon
Sampler's Company: Pioneer Technical Services
Shipment Method: Fed Ex Ship Date: 4/8/10
Shipment Tracking No:

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Brad Hollamon / PTS	4/8/10	1515			

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: ________ °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Consultant/Contractor Copy

1311006

SAMPLE ID

Invoice:
Customer:
Dept:
PO Number:

Date: 11/25/2009
Wgt: 10.0 LBS
COD: 0.00
DV: 0.00

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

Svcs: GND PPD RMGR
TRCK: 879718460004484

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www.pacelabs.com

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1311006

Section A
Required Client Information:

Company: Pioneer Technical Services
Address: 63 1/2 W. Broadway
Butte, MT, 59701
Email To: [illegible]
Phone: 406-563-9771
Fax:
Requested Due Date/TAT:

Section B
Required Project Information:

Report To:
Copy To: - Same -
Purchase Order No.:
Project Name: Stevensville SA-4
Project Number: 10149-010

Section C
Invoice Information:

Attention:
Company Name: - Same -
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER MDEQ

Site Location
STATE: MT

Section D
Required Client Information

Matrix Codes
MATRIX / CODE
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	EC	Sat. Paste pH	Rock Frag.	[illegible]	[illegible]	Hg						Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Peterson-Borrow-36(2009)	SL	G	3/26/10	1710				1	X									X	X	X	X	X	X							
2	Peterson-Borrow-37(2009)				1720				1	X									X	X	X	X	X	X							
3	Peterson-Borrow-38(2009)				1730				1	X									X	X	X	X	X	X							
4	Peterson-Borrow-39(2009)				1740				1	X									X	X	X	X	X	X							
5	Peterson-Borrow-41(2009)				1300				1	X									X	X	X	X	X	X							
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Please analyze	Brad Holloman	4/6/10	1205							
Hg past hold										
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

4

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Brad Holloman
SIGNATURE of SAMPLER: Brad Holloman
DATE Signed (MM/DD/YY): 4/6/10

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

#22

PIONEE
TECHNICAL SERVIC

P.O Box 3445, Butte, MT 59702
www.pioneer-technical.com

Closed
County Silver Bow
Facility & # Butte-Silver Bow #20
Closure
Finan Assur
GW Corr Meas
[✓ GW Monitoring]
GW Reports
Inspections
Other:
Landfarm
Liner
Methane
O & M
Run-on

RECEIVED
JUL 02 2009
Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau

June 29, 2009
Martin Van Oort
MDEQ/Solid Waste Pro
P.O Box 200901
Helena, MT 59620-0901

RE: Old Butte-Silver Bow County Landfill/Clark Tailings

Dear Martin,

Enclosed please find results from the Old Butte-Silver Bow County Landfill/Clark Tailings March 2009 semi-annual groundwater monitoring event. The following have been included for your information:

- March 2009 sampling summary;
- CD with Table oldlfctMar09 (non-parametric comparison of wells);
- Groundwater field parameters collected in the field;
- Copy of field notes;
- Trend graphs of detected compounds;
- Groundwater potentiometric surface map for March 2009;
- Statistical analysis; and
- Analytical data from Energy Labs in Billings and Pace Labs in Minneapolis Mn.

Detections that were higher than background, but do not exceed maximum baseline include:

- Sulfate at 538 mg/L in BSB-A5 (maximum background concentration is 247 mg/L);
- Cis-1,2 Dichloroethene at 0.68 µg/L in BSB-A5 (maximum background concentration is 0.45 µg/L);
- Tetrachloroethene at 0.44 µg/L in BSB-A5 (maximum background concentration is 0.04 µg/L);
- Sulfate at 1640 mg/L in BSB-A6R (maximum background concentration is 247 mg/L);
- COD at 282 mg/L in BSB-A6R (maximum background concentration is 244 mg/L);
- Benzene at 0.60 µg/L in BSB-A6R (maximum background concentration is 0.25 µg/L);
- Chloroethane at 0.51 µg/L in BSB-A6R (maximum background concentration is 0.05 µg/L);
- 1,4-Dichlorobenzene at 2.80 µg/L in BSB-A6R (maximum background concentration is 0.06 µg/L);
- Dichlorodifluoromethane at 2.0 µg/L in BSB-A6R (maximum background concentration is 0.04 µg/L);
- 1,1-Dichloroethane at 1.5 µg/L in BSB-A6R (maximum background concentration is 0.045 µg/L);
- Cis-1,2 Dichloropropane at 0.48 µg/L in BSB-A6R (maximum background concentration is 0.08 µg/L);
- Naphthalene at 0.72 µg/L in BSB-A6R (maximum background concentration is 0.13 µg/L);
- Trichloroethene at 0.64 µg/L in BSB-A6R (maximum background concentration is 0.06 µg/L);
- Vinyl Chloride at 6.90 µg/L in BSB-A6R (maximum background concentration is 0.15 µg/L);
- Sulfate at 350 mg/L in CLK-1 (maximum background concentration is 247 mg/L);
- Arsenic at 0.110 mg/L in CLK-1 (maximum background concentration is 0.010 mg/L);
- Cadmium at 0.018 mg/L in CLK-1 (maximum background concentration is 0.011 mg/L);
- Cobalt at 0.058 mg/L in CLK-1 (maximum background concentration is 0.010 mg/L);
- Iron at 19.2 mg/L in CLK-1 (maximum background concentration is 2.18 mg/L);
- Nickel at 0.047 mg/L in CLK-1 (maximum background concentration is 0.010 mg/L);
- Zinc at 62.7 mg/L in CLK-1 (maximum background concentration is 0.092 mg/L);
- Sulfate at 804 mg/L in CLK-2 (maximum background concentration is 247 mg/L);
- Nickel at 0.026 mg/L in CLK-2 (maximum background concentration is 0.010 mg/L);
- Zinc at 0.550 mg/L in CLK-1 (maximum background concentration is 0.092 mg/L);

Detections that were higher than both maximum baseline and maximum background include:

- Cyanide at 0.039 mg/L in BSB-A6R (maximum baseline concentration is 0.021 mg/L and maximum background is 0.006 mg/L).

There were no detections that were higher than maximum baseline, but lower than maximum background during this sampling event.

The groundwater velocity was calculated using Darcy's Law and the equation for the seepage velocity. The average groundwater velocity for March 2009 sampling event was 0.39 ft/day. The hydraulic conductivity value used to obtain the GW velocity was obtained from the Corrective Measures Assessment report (Pioneer Technical Services, April 2009) and from pumping data from the March 2009 sampling.

Sincerely,

Brad Hallo

Brad Hollamon
Senior Technician

Encl.
cc. Gary Keeler, BSB Landfill Manager
Shawn Bisch, Pioneer Technical Services Inc.
Shannon Dunlap, Atlantic Richfield Company

OLD SILVER BOW LANDFILL
MARCH 2009 GROUNDWATER MONITORING

The March 2009 round of sampling at the Old Silver Bow Landfill included sampling for the full Table 2 list of analytics in accordance with the Assessment Monitoring program. Table 1, attached, summarizes the analytical results. The discussion below compares these data to previous results and to current Maximum Contaminant Levels (MCLs) and Montana Human Health Standards (HHSs).

Well MBMG-2 (up gradient):

No semi-volatiles, volatile, chlorinated acids, or pesticides were detected in the well during this sampling event. Metals detected below the mean are; Ba (0.100 mg/L).There were no metals detected above the mean during this sampling event. Nitrate/nitrite (6.52 mg/L), Chloride (42 mg/l), and Sulfate (149 mg/L) were detected at concentrations below the mean.
No MCL or HHS exceedences were observed in this well during this sampling event.

Well BSB-A1 (North):

No semi-volatile, volatile, chlorinated acids, or pesticides were detected in the well during this sampling event. In accordance with the modified assessment-monitoring program, a sample for metals analyses was not collected from this well.
There were no inorganic compounds detected at levels above the mean during this sampling event in this well. Chloride (16.0 mg/L), sulfate (78 mg/L), and nitrate/nitrite (0.46 mg/L) were detected at levels below the mean.
No MCL or HHS exceedences were observed in this well during this sampling event.

Well BSB-A5 (Northeast Well):

In accordance with the modified assessment-monitoring program, a sample for metals analyses was not collected from this well. No semi-volatiles, chlorinated acids, or pesticides were detected in the well during this sampling event. Two volatile organic compounds were detected in this well during this sampling event, Tetrachloroethene (ELI 0.44 J µg/L) and cis-1,2-Dichloroethene (ELI 0.68 J µg/L).
Chloride (24 mg/L), Sulfate (538 mg/L), Nitrate/Nitrite (1.63 mg/L) and COD (11 mg/L) were detected at levels below the mean.
Sulfate exceeds the secondary USEPA MCL of 250 mg/L.

Well BSB-A6-R (Central Well):

Well BSB-A6-R is the replacement well for BSB-A6, removed during the construction of Timber Butte Youth Park. Ten volatile organic compounds (VOC's) were detected in this well; six of the eleven were detected at levels below the quantification limit. The ten volatile organic compounds were as follows:

- Benzene (0.64 J ug/L);
- Chloroethane (0.51 J ug/L);

- 1,4 – Dichlorobenzene (2.8 ug/L);
- Dichlorodifluoromethane (2.0 ug/L);
- 1,1-DCA (1.5 ug/L);
- Cis-1,2-DCE (8.2 ug/L);
- 1,2-Dichloropropane (0.48 J ug/L);
- Naphthalene (0.72 J ug/L);
- Trichloroethene (0.64 J ug/L);
- Vinyl Chloride (6.9 ug/L).

Vinyl Chloride exceeds the MDEQ-7 HHS standard of 0.2 ug/L.
No other semi-volatiles, chlorinated acids, or pesticides were detected. In accordance with the modified assessment-monitoring program, a sample for metals analyses was not collected from this well.

Chloride (51 mg/L) and. Sulfate (1640 mg/L, mean 1964 mg/L) were detected below their mean values. Sulfate exceeds the secondary USEPA MCL of 250 mg/L. Cyanide was also detected in BSB-A6R at 0.039 mg/L. The lab has recently change methods to the Kelada Modified for cyanide and had indicated that there was an oxidizing agent present in this sample, I have contacted Energy Laboratories in Billings regarding the cyanide detection as there has not been any previous detections for cyanide in BSB-A6R and the possibility of an interference with this method.

Well CLK-1 (Clark Tailings East Well):

In accordance with the modified assessment-monitoring program, no samples for organic analyses were collected from this well. The measured concentrations of the majority of metals were relatively low; the detected concentrations of arsenic (0.110 mg/L), cadmium (0.018 mg/L), Zn (62.7 mg/L) and iron (19.2 mg/L), exceed US EPA MCL or Montana HHS standards.
Sulfate was detected at a concentration of 350 mg/L, which exceeds the secondary MCL for this compound. Chloride was also detected (34.3 mg/L), with a mean value of 34.2 mg/L.

Well CLK-2 (Clark Tailings North Well):

In accordance with the modified assessment-monitoring program, no samples for organic analyses were collected from this well. The measured concentrations of the majority of metals were relatively low; the detected concentrations of arsenic (0.0010 mg/L), and zinc (0.550 mg/L) were low respective to MCLs, secondary MCLs, or Montana HHS concentrations for these metals.
Sulfate was detected at a concentration of 804 mg/L, which exceeds the secondary MCL for this compound. Chloride (58.1 mg/L) was detected above the mean of (57 mg/L).

Conclusion:

The March 2009 sampling event at the Old Butte-Silver Bow Landfill included sampling according to the modified assessment-monitoring program (see Table 2 for analytical data). The results for metals, inorganics, and organic contaminants obtained from this sampling event were comparable to previous results.

Duplicate samples for BSB-A6R and CLK-2 were collected during this sampling event. A6R for VOA 8260 only and CLK-2 for dissolved metals and inorganic analysis only. A field blank was also collected for dissolved metals and inorganic analysis only. A trip blank was analyzed for the organic analysis at the lab.

Old Butte-Silver Bow County Landfill
GROUNDWATER FIELD CHEMISTRY RESULTS AND PURGE VOLUMES
March-09

Well I.D.	Sample #	Depth (ft)	Radius (ft)	S.W.L. (ft)	TOC Elevation (ft)	Groundwater Elevation (ft)	pH. (su)	E.h. (mV)	S.C. (uS/cm)	T (Celsius)	Sample Time	H2O Volume Req'd (gal)	H2O Volume Purged (gal)	Comments
MBMG-2	BSB-GW-01	23.25	0.17	10.91	5529.88	5518.97	7.09	173.3	741	7.1	12:20	6.17	4.25	
BSB-A1	BSB-GW-02	57.00	0.17	38.09	5531.50	5493.41	7.10	166.9	444	8.8	14:50	9.46	2.00	
BSB-A5	BSB-GW-03	45.60	0.17	44.50	5524.62	5480.12	6.02	167.2	1147	8.3	15:10	0.55	0.55	
BSB-A6-R	BSB-GW-04	59.75	0.17	52.11	5554.41	5502.30	6.12	134.5	2732	8.3	11:40	3.82	2.25	
BSB-A6-R	BSB-GW-07	59.75	0.17	52.11	5554.41	5502.30	6.12	134.5	2732	8.3	12:00	3.82	2.25	VOC Duplicate
CLK-1	BSB-GW-05	19.00	0.17	5.09	5478.73	5473.64	6.29	150.7	2211	7.2	15:35	6.96	4.75	
CLK-2	BSB-GW-06	46.90	0.17	41.35	5511.17	5469.82	6.33	178.4	1786	8.4	14:18	2.78	5.00	
CLK-2	BSB-GW-08	46.90	0.17	41.35	5511.17	5469.82	6.33	178.4	1786	8.4	14:30	2.78	5.00	Raw, DM Duplicate
Blank	BSB-GW-09	NA	NA	NA	NA	NA	NA	NA	NA	NA	16:30	NA	NA	Field Blank

KEY:

NA	Measurement Not Taken
SA	Sample Not Taken

12/12/08 Meter Calibration

pH 4.01 - 4.01 SLP-96.8
7.00 - 7.02
10.01 - 10.02

SC 1413 std → 1410 µS/cm @ 18.1c

Eh Zoebells Soln → 238.7 mv

DO Calibrated for 5600'

3/24/09 Old Landfill

11:15 Arrive on site.
Background Well MBMG-2
DTW - 10.91' IPVC, TD - 23.25'
Column - 12.34', 2"-dia.
3 Well Vol. - 6.17'

11:45 Begin purging w/
Variable speed 12 volt pump
& teflon tubing. Pump set
at 18', purging at 0.25 LPM.
Initial DTW - 10.89, drawdown
11.06' remaind during purging.

Meter Calibration:

pH 4.01 - 4.00 SLP-94.4
7.00 - 7.02
10.01 - 10.01

SC 1413 std → 1434 µS/cm @ 18.3°C

Eh Zoebells → 242 mv

DO Calibrated for 5200'

3/24/09 MBMG-2

1220 Collect BSB-GW-01

500ml HDPE, Raw - SC, pH, Anions
500ml HDPE, NaOH - CN⁻
250ml HDPE, H_2SO_4 - NO_2/NO_3, COD
250ml HDPE, NaOH/ZnAc - Sulfide
1L Amber-glass, Raw - 8151
1L Amber-glass, Raw - 8081A
1L Amber-glass, Raw - 608
2L Amber-glass, Raw - 8270
3-40ml VOA vials, HCl - 8260b
250ml HDPE, Filt/HNO_3 - DM-TAL

Remove & decon pump.

13:15 Arrive at BSB-A1
DTW-38.09' IPVC, TD-57.00'
Column-18.91', 2" dia.
3 well vol.-9.5 gallons

13:40 Begin purging w/ variable speed 12volt pump & teflon tubing. Pump set at 47', purging at 0.2LPM

Initial DTW-38.03, drawdown 38.80', remained between 38.64-38.75 during purge.

14:50 Collect BSB-GW-02

500ml HDPE, Raw - SC, pH, Cl⁻, SO_4^{-2}
500ml HDPE, NaOH - CN⁻
250ml HDPE, H_2SO_4 - NO_2/NO_3, COD
250ml HDPE, NaOH/ZnAc - Sulfide
1L Amber-glass, Raw - 8151
1L Amber glass, Raw - 8081A
1L Amber glass, Raw - 608
2-1L Amber glass, Raw - 8270
3-40ml VOA vials, HCl · 8260b

Remove pump & decon

14:15 Arrive at BSB-A5
DTW-44.55 IPVC, TD-45.6'
measured w/ DTW meter.
Column-1.1', 2" dia.
3 well vol.-0.55 gal.

Due to limited water

3/24/09

Column in BSB-A5, well was bailed using double check ball teflon bailer. Starting at 14:30. Bailed 0.55 gallons. Well not purged dry.

1510 Collect BSB-GW-03

500ml HDPE, Raw - pH, SC, Cl; SO_4?
500ml HDPE, ~~Raw~~ BH NaOH - CN^-
250ml HDPE, H_2SO_4 - NO_2/NO_3, COD
250ml HDPE, NaOH/ZnAc - Sulfide
1L Amber glass, Raw - 8151
1L Amber glass, Raw - 8081A
1L Amber glass, Raw - 608
2-1L Amber glass, Raw - 8270
3-40ml VOA vials, HCl - 8260b

3/25/09 Old Landfill

10:10 Arrive at BSB-A6R
DTW - 52.11' TPOC, TD - 59.75'
Column - 7.64', 2" - dia.
3 Well Vol. - 3.82 gallons

10:41 Begin purging w/ variable speed 12volt pump & teflon tubing. purging at approx. 150ml/min. Initial DTW - 52.08', drawdown 52.55' stabalized at this level.

1140 Collect BSB-GW-04

500ml HDPE, Raw - pH, SC, Cl^-, SO_4^{-2}
500ml HDPE, NaOH - CN^-
250ml HDPE, H_2SO_4 - NO_2/NO_3, COD
250ml HDPE, NaOH/ZnAc - Sulfide
1L Amber glass, Raw - 8151
1L Amber glass, Raw - 8081A
1L Amber glass, Raw - 608
2-1L Amber glass, Raw - 8270
3-40ml VOA vials, HCl - 8260

3/25/09

1535 collect BSB-GW-05

1L HDPE, Raw - pH, SC, Cl⁻, SO4⁻²
250ml HDPE Filt/HNO3 - DM - TAL

Pull pump & decon

Purged 4.75 total gallons prior to collecting sample,

1630 collect BSB-GW-09

1L HDPE, Raw - pH, SC, Cl⁻, SO4⁻²
250ml HDPE, Filt/HNO3 - DM - TAL

D.I. Water ran thru 12 volt pump & tubing into container DM Filt/HNO3 thru 0.45µm Hi-Flo filter.

3/30/09 New Landfill CH4

CH4-1 Background:

CO2% - 0.0
O2% - NA
CH4% - 0.0

Readings: 817mb

CO2% - 0.1
O2% - NA
CH4% - 0.0

CH4-2 Readings:

CH4% - 0.0
O2% - NA
CO2% - 0.4

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION MBMG-2
DATE 3/24
TIME 11:15
SAMPLERS BA/S
WEATHER CONDITIONS Cloudy, Calm, 28°F
PHOTO: Yes ______ No ______
ROLL# ______
NUMBER ______

PURGE DATA:

PURGE METHOD 12 volt variable speed
START PURGING 1145
PURGE RATE 0.25 ~~GPM~~ LPM
RATE CHANGE 1) Time ______ Rate ______
2) Time ______ Rate ______
SAMPLE TIME 1220

WELL DEPTH 23.25 Feet
DEPTH TO WATER 10.91 Feet
COLUMN DEPTH 12.34 Feet
CASING DIAMETER 2" Inch
PUMP SET AT 18' Feet
3 WELL VOLUMES 6.17 Gallons
TOTAL PURGE VOLUME 4.25 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-01	1 Liter	✓	HNO_3	Dissolved Metals-TAL
BSB-GW-01	500ml ~~1 Liter~~		Raw	pH, SC, Cl⁻, SO4⁻²
BSB-GW-01	500ml ~~1 Liter~~		NaOH	CN⁻
BSB-GW-01	250ml ~~1 Liter~~		H2SO4	NO2/NO3, COD
BSB-GW-01	1 Liter (5)		Raw	8151, 8081A, 608, 8270
BSB-GW-01	250ml		NaOH/ZnAc	Sulfide
	4-40ml VOA		HCl	8260

FIELD PARAMATERS:

TIME	Q/B Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l	
1155	6.50	7.2	7.07	736		4.31	
1200	8.25	7.3	7.09	737	148.7	4.33	11.09
1205	10.25	7.3	7.10	738	172.3	4.32	11.10
1210	~~11.00~~	7.3	7.10	737	175.1	4.34	11.08
1215	16.25	7.1	7.09	741	173.3	4.15	11.06

FINAL FIELD PARAMETERS PRIOR TO SAMPLING

FIELD REMARKS: Initial 10.89', Initial drawdown - 11.06'

~~Pioneer Technical Services~~

4.34
4.15
.19
4.04

FIELD SAMPLE DATA SHEET Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION BSB-A1 DATE 3/24/09 TIME 13:15
SAMPLERS BH/JF WEATHER CONDITIONS Cloudy, slight breeze, 30°F
PHOTO: Yes ______ No ______ ROLL# ______ NUMBER ______

PURGE DATA:

		WELL DEPTH	57.00	Feet
PURGE METHOD	Variable 12 volt pump	DEPTH TO WATER	38.09	Feet
START PURGING	1340	COLUMN DEPTH	18.91	Feet
PURGE RATE	0.2 ~~GPM~~ LPM	CASING DIAMETER	2"	Inch
RATE CHANGE	1) Time ______ Rate ______	PUMP SET AT	47	Feet
	2) Time ______ Rate ______	3 WELL VOLUMES	9.5	Gallons
SAMPLE TIME	14:50	TOTAL PURGE VOLUME	~~1.5~~ 2.0 BSA	Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-02	1 Liter		HNO_3	Dissolved Metals- See logbook for analysis
	1 Liter			
	1 Liter			
	1 Liter			
	1 Liter			

FIELD PARAMATERS:

TIME	(Qts) Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l	
1350	2.5	8.3	7.11	444	170.8	2.22	
1355	3.5	8.4	7.13	444	170.4	2.37	38.75
1400	4	8.7	7.13	443	171.4	2.44	38.75
1405	4.5	9.1	7.10	443	167.5	2.39	38.75
1410	4.75	9.3	7.08	442	172.5	2.32	
1415	5.25	9.4	7.08	443	160.5	2.21	38.64
1420		9.9	7.08	440	166.9	2.12	38.6
1425	6.0	9.2	7.09	443	166.2	2.07	38.6
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						over	

FIELD REMARKS: Initial 38.03, Initial drawdown - 38.81'

~~Pioneer Technical Services~~

Time	Amount (Qts)	Temp	pH	Sc	Eh	DO	DepthT
1430	6.5	8.9	7.09	445	169.3	2.05	38.68
1435	7.0	8.6	7.16	444	181.5	1.99	38.65
1440	7.5	8.5	7.11	444	171.6	2.08	38.67
1445	7.75	8.5	7.11	445	168.4	2.07	38.65
1450	8	8.8	7.10	444	166.9	2.04	38.69

FIELD SAMPLE DATA SHEET

Page __ of __

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION BSB-A5 DATE 3/24/09 TIME 1415
SAMPLERS BH/JF WEATHER CONDITIONS cloudy, slt breeze, 30's
PHOTO: Yes ______ No X ROLL# ______ NUMBER ______

PURGE DATA:

PURGE METHOD Bailer
START PURGING 1430
PURGE RATE ______ GPM
RATE CHANGE 1) Time ______ Rate ______
2) Time ______ Rate ______
SAMPLE TIME 1510
Finished @ 1605

WELL DEPTH 45.6 Feet *- measured
DEPTH TO WATER 44.5 Feet
COLUMN DEPTH 1.1 Feet
CASING DIAMETER 2" Inch
PUMP SET AT ______ Feet
3 WELL VOLUMES .55 Gallons
TOTAL PURGE VOLUME ______ Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-03	1 Liter		HNO_3	Dissolved Metals- see log book for analysis
	1 Liter			
	1 Liter			
	1 Liter			
	1 Liter			

FIELD PARAMATERS:

TIME	Amount Purged gal	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
16	.55	8.3	6.02	1147	167.2	2.75
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						

FIELD REMARKS: Used DTW indicator to measure bottom. Not enough water to use pump, will bail appropriate amount and sample on 3/25/09 to prevent purging dry-

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION BSB-A6R DATE 3/25/09 TIME 10:10
SAMPLERS BH/F WEATHER CONDITIONS Cloudy, Windy, 39°F
PHOTO: Yes ______ No ______ ROLL# ______ NUMBER ______

PURGE DATA:

PURGE METHOD Variable speed 12 Volt Pump
START PURGING 10:41
PURGE RATE 0.15 ~~GPM~~ LPm
RATE CHANGE 1) Time ______ Rate ______
2) Time ______ Rate ______
SAMPLE TIME 11:40

WELL DEPTH 59.75 Feet
DEPTH TO WATER 52.11 Feet
COLUMN DEPTH 7.64 Feet
CASING DIAMETER 2" Inch
PUMP SET AT 56' Feet
3 WELL VOLUMES 3.82 Gallons
TOTAL PURGE VOLUME 2.25 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-04	1 Liter		~~HNO_3~~	~~Dissolved Metals~~ See logbook for analysis
	1 Liter			
	1 Liter			
	1 Liter			
BSB-GW-07	1 Liter			Duplicate

See logbook for Analysis.

FIELD PARAMATERS:

TIME	Qts Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l	
1100	2.5	8.7	6.05	2652	118.2	2.26	52.60
1105	3.5	8.5	6.10	2681	123.9	1.94	52.6
1110	4.25	8.1	6.12	2677	126.9	1.87	52.63
1115	4.5	7.9	6.13	2685	128.5	1.75	52.64
1120	5.5	8.1	6.12	2697	128.9	1.63	52.67
1125	6.5	8.4	6.12	2692	131.0	1.47	52.68
1130	7.5	8.5	6.12	2716	133.7	1.43	52.69
1135	8.5	8.3	6.12	2732	134.5	1.39	52.69
	9 qts total						
FINAL FIELD PARAMETERS PRIOR TO SAMPLING							
~~1140~~							

FIELD REMARKS: Initial DTW - 52.08' w/pump installed.
drawdown - 52.55'

~~Pioneer Technical Services~~

FIELD SAMPLE DATA SHEET

Page __ of __

Project Name:
WELL/STATION CLK-2 DATE 3/25/09 TIME ~~Boo~~ 13:30
SAMPLERS E/BH WEATHER CONDITIONS Breezy, 30s, Cloudy
PHOTO: Yes ______ No _____ ROLL# ______ NUMBER ________

PURGE DATA:

PURGE METHOD 12 volt pump w/ restrictor valve
START PURGING 1:55
PURGE RATE 0.25 GPM
RATE CHANGE 1) Time ______ Rate _________
2) Time ______ Rate _________
SAMPLE TIME 1418

WELL DEPTH 46.90 Feet
DEPTH TO WATER 41.35 Feet
COLUMN DEPTH 5.55 Feet
CASING DIAMETER 2 Inch
PUMP SET AT 44 Feet
3 WELL VOLUMES 2.78 Gallons
TOTAL PURGE VOLUME ~~4.75~~ 5.0 BH Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-06	1 Liter		HNO_3	Dissolved Metals- See logbook for analysis
	1 Liter			
	1 Liter			
	1 Liter			
BSB-GW-08	1 Liter			Duplicate

FIELD PARAMATERS:

TIME	Gal Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l	
1400	1	8.5	6.39	1778	170.2	0.72	42.78
1402	1.50	8.6	6.36	1773	173.5	0.68	42.76
1404	2	8.6	6.34	1776	174.0	0.66	42.75
1406	2.50	8.6	6.34	1774	173.2	0.69	42.76
1408	3.0	8.6	6.33	1777	173.7	0.79	42.80
1410	3.5	8.6	6.33	1775	179.1	0.83	42.80
1412	3.75 ~~4.0~~	8.9	6.32	1774	185.7	0.90	42.81
1414	15 qts	8.8	6.32	1778	181.2	0.96	
1416	18 qts	8.6	6.32	1785	179.0	0.99	42.80
FINAL FIELD PARAMETERS PRIOR TO SAMPLING							
1418	19 qts	8.4	6.33	1786	178.4	1.01	42.79

FIELD REMARKS: ______________________________

~~Pioneer Technical Services~~

FIELD SAMPLE DATA SHEET

Page __ of __

Project Name:
WELL/STATION CLK-1 DATE 3/25/09 TIME 14:46
SAMPLERS BM/J WEATHER CONDITIONS
PHOTO: Yes ______ No ______ ROLL# ______ NUMBER ______

PURGE DATA:

WELL DEPTH 19.00 Feet
PURGE METHOD 12 volt pump w/restrictor valve
DEPTH TO WATER 5.09 Feet, 7.27
START PURGING ~~0.25~~ 1500
COLUMN DEPTH 13.91 Feet
PURGE RATE 0.25 GPM
CASING DIAMETER 2 Inch
RATE CHANGE 1) Time ______ Rate ______
PUMP SET AT 12 Feet
2) Time ______ Rate ______
3 WELL VOLUMES 7 Gallons
SAMPLE TIME 15:35
TOTAL PURGE VOLUME 4.75 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED	
BSSB-GW-05	1 Liter		HNO_3	Dissolved Metals- See	logbook
	1 Liter			for anal	ysis
	1 Liter				
	1 Liter				
	1 Liter				

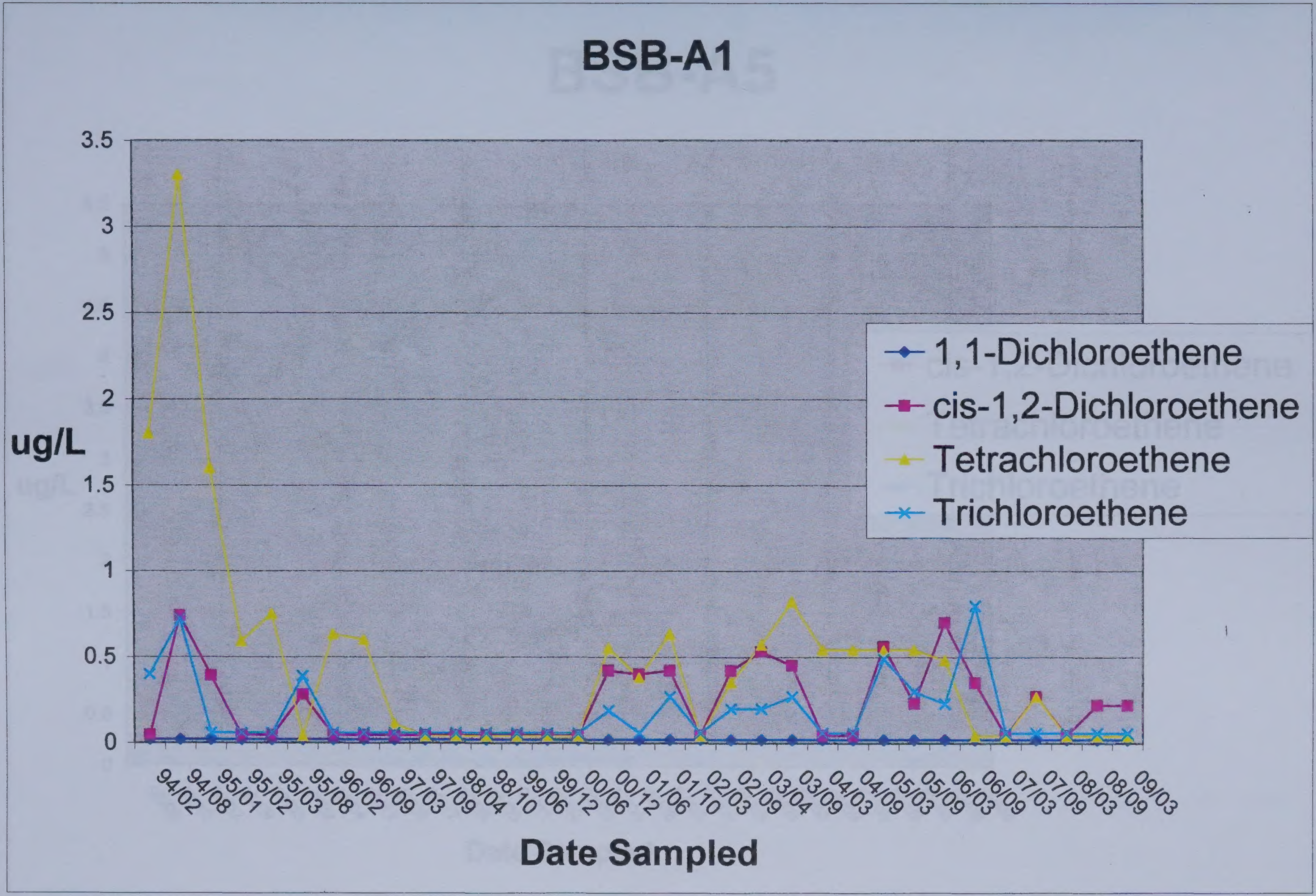
FIELD PARAMATERS:

TIME	Amount Purged Gals	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l	
1502	3	7.0	7.29	2161		0.72	7.44
1504	3.5	7.0	6.99	2175	163.3	0.54	7.45
1506	4.5	7.0	6.82	2177	156.9	0.55	7.43
1508	6	7.0	6.70	2180	158.4	0.53	7.44
1510	6.5	7.2	6.62	2184	153.6	0.47	7.41
1512	7	7.2	6.58	2182	151.5	0.45	7.38
1514	8	7.0	6.51	2192	149.9	0.42	7.38
1516	9	6.8	6.47	2195	149.1	0.37	7.37
FINAL FIELD PARAMETERS PRIOR TO SAMPLING							

FIELD REMARKS: ______

~~Pioneer Technical Services~~

Time	Amount	Temp	pH	SC	eH	DO	DTW
1520	11	6.5	6.43	2209	147.6	0.33	7.37
1522	12	6.5	6.41	2210	146.9	0.32	7.36
1524	13	6.5	6.38	2209	146.2	0.33	7.3
1528	16	6.4	6.35	2213	148.3	0.23	
1530	17	6.8	6.33	2212	149.6	0.24	7.39
1532	17.5	7.0	6.32	2210	151.6	0.27	7.38
1534	18	7.1	6.30	2215	151.4	0.27	7.3
1536	19	7.2	6.29	2211	150.7	0.27	7.3


BSB-A1
3.5
3
2.5
2
1.5
1
0.5
0
ug/L
1,1-Dichloroethene
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
94/02
94/08
95/01
95/02
95/03
95/08
96/02
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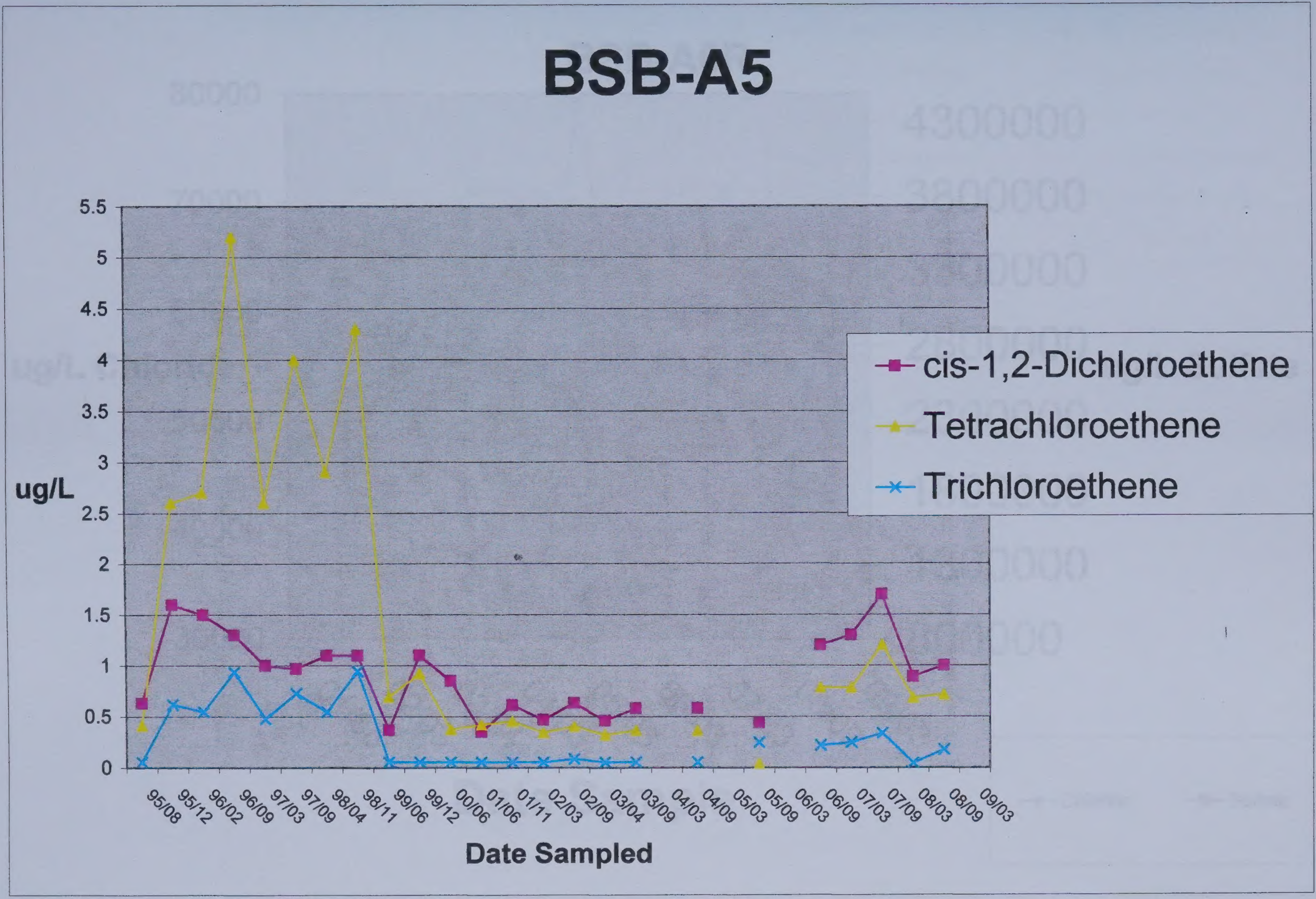
Date Sampled


BSB-A5
ug/L
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
95/08
95/12
96/02
96/09
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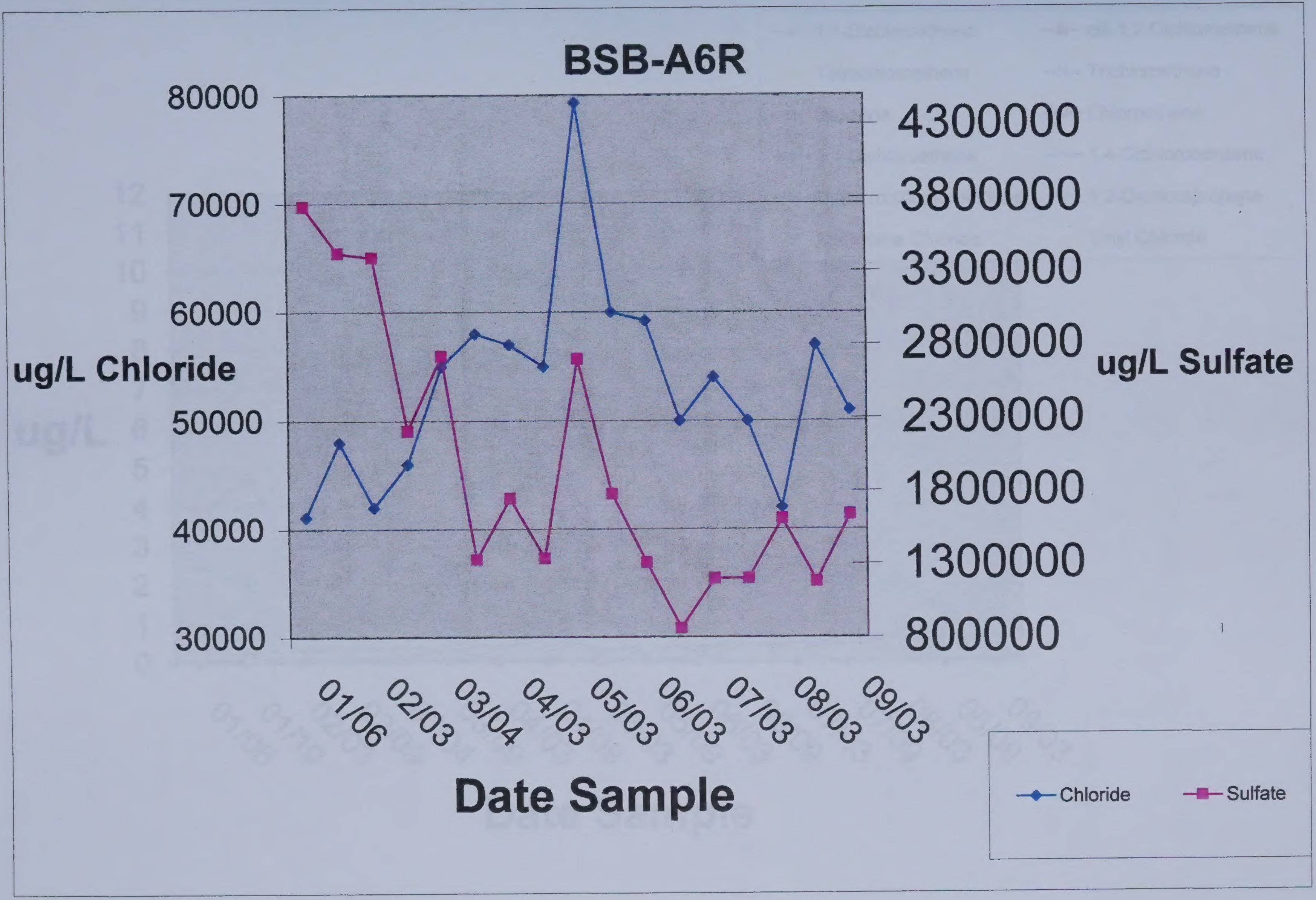
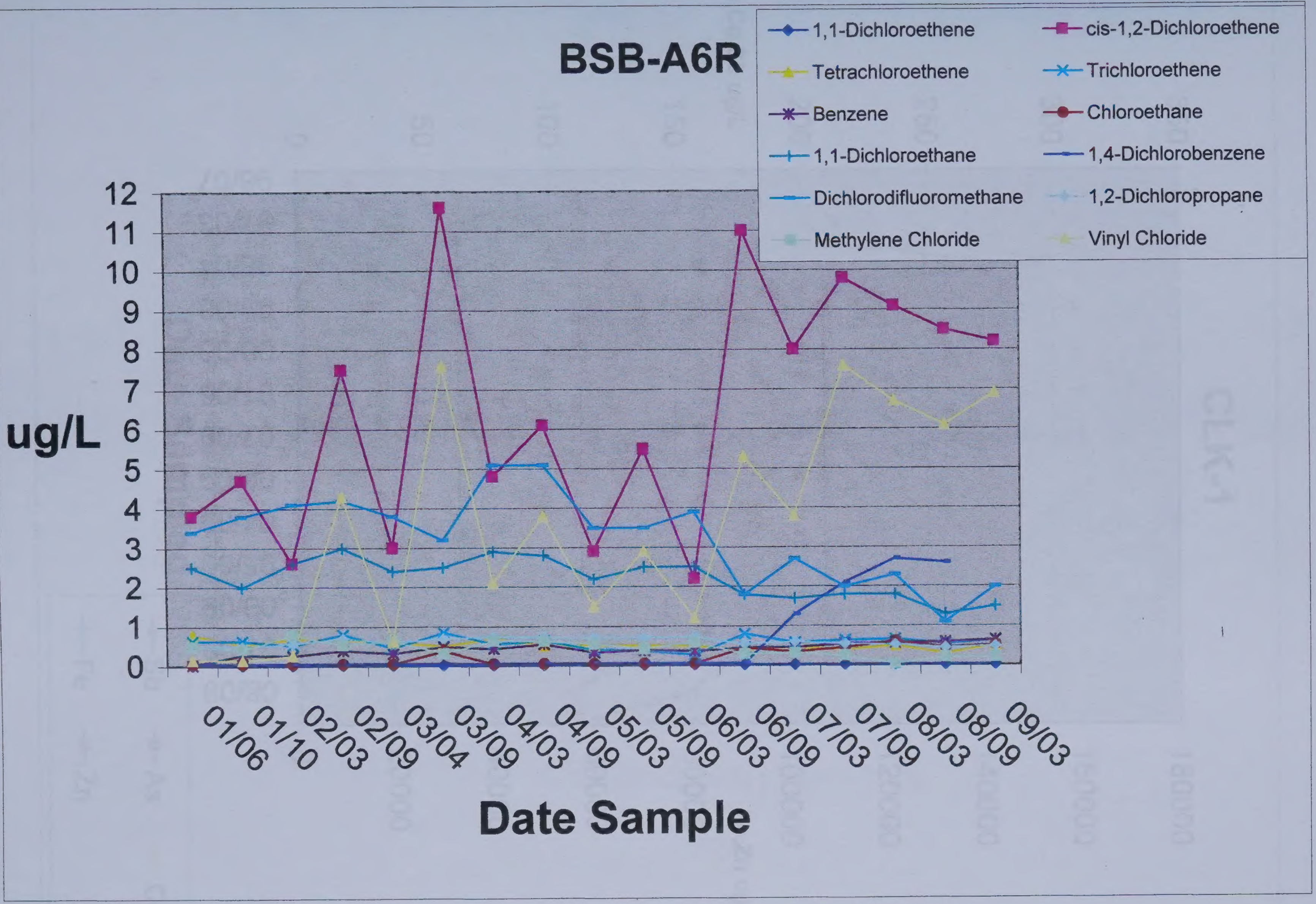
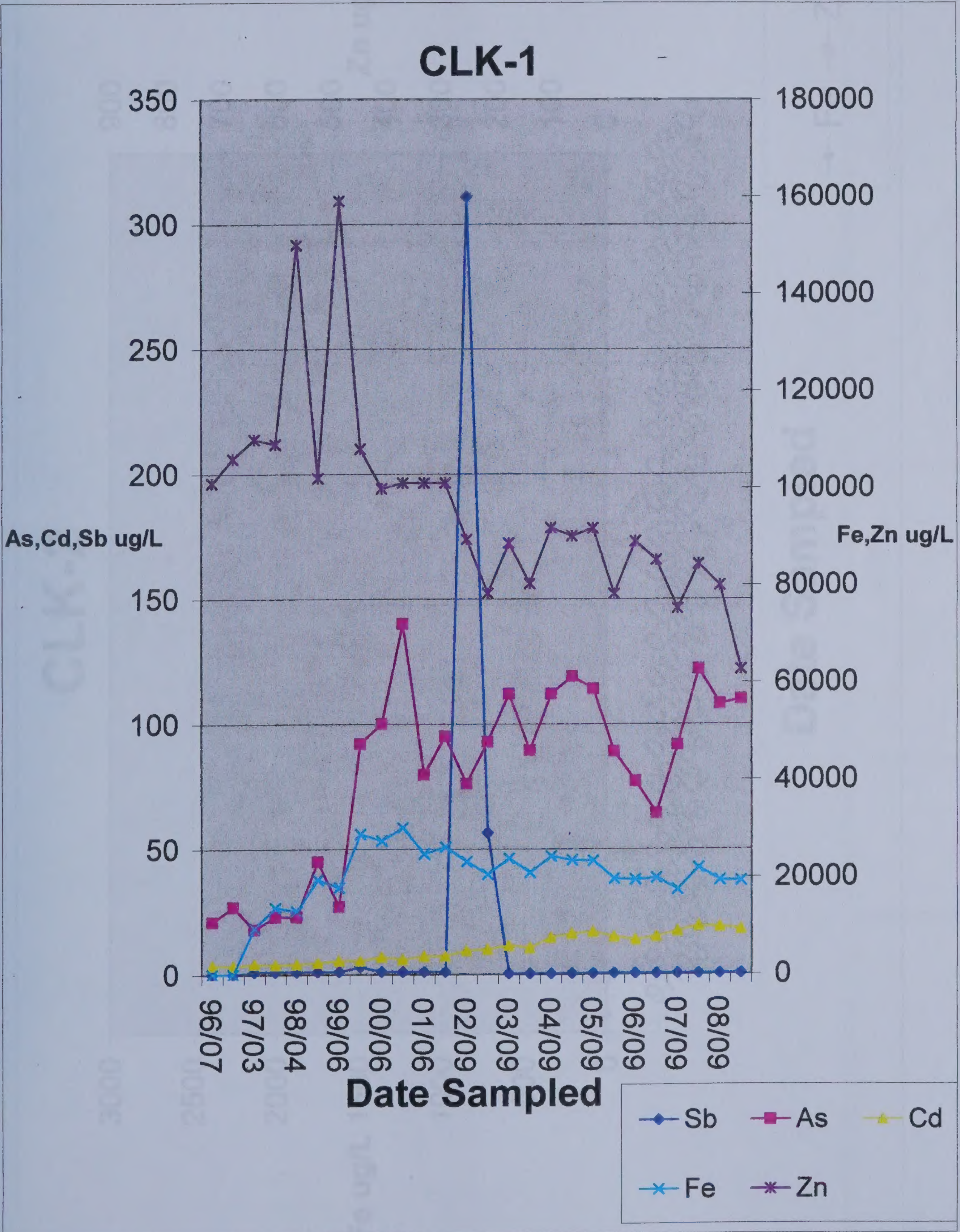
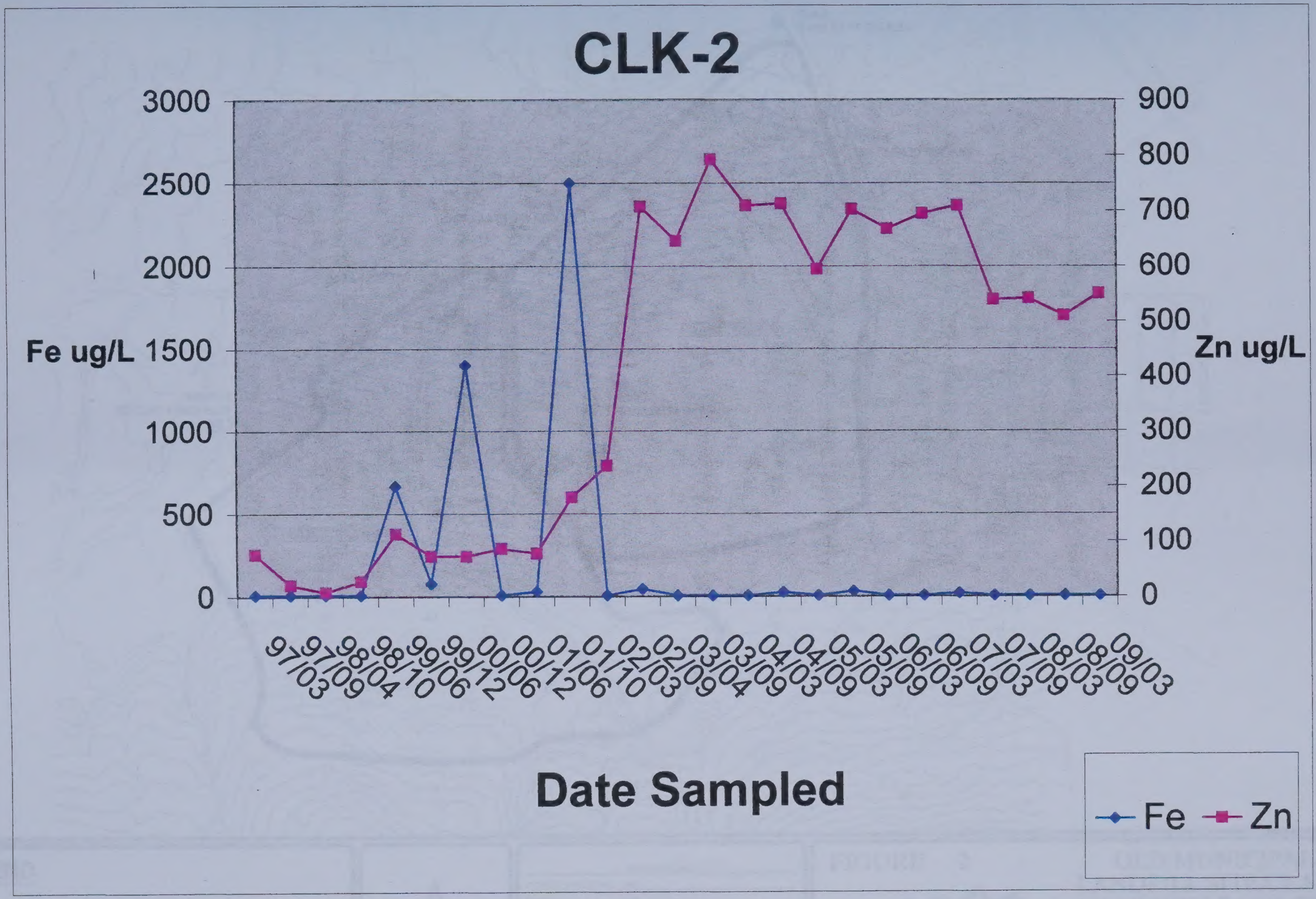
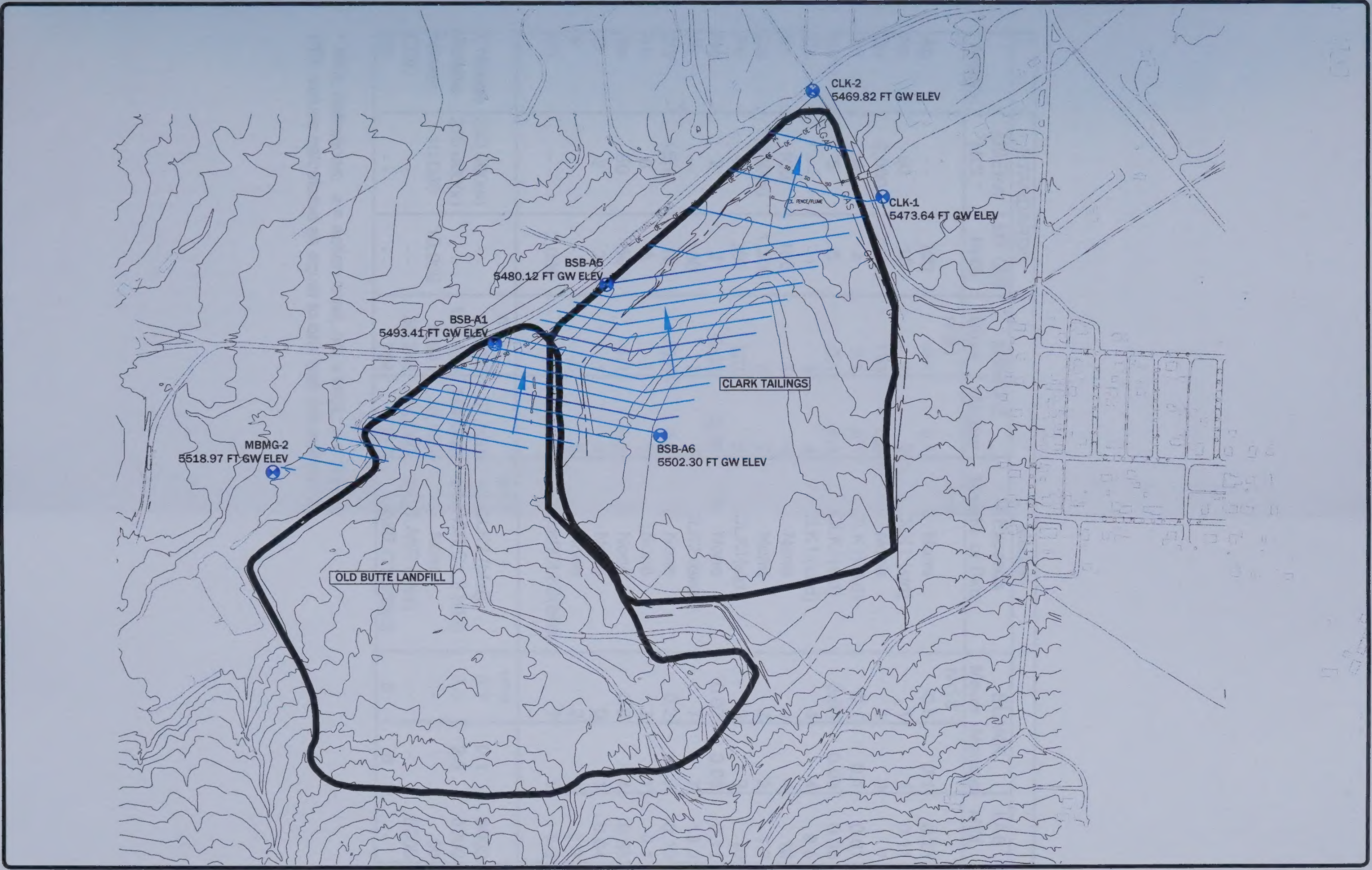
07/09
08/03
08/09
09/03
Date Sampled
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene


BSB-A6R
80000
70000
60000
50000
40000
30000
ug/L Chloride
4300000
3800000
3300000
2800000
2300000
1800000
1300000
800000
ug/L Sulfate
01/06
02/03
03/04
04/03
05/03
06/03
07/03
08/03
09/03
Date Sample
Chloride
Sulfate


BSB-A6R
1,1-Dichloroethene
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
Benzene
Chloroethane
1,1-Dichloroethane
1,4-Dichlorobenzene
Dichlorodifluoromethane
1,2-Dichloropropane
Methylene Chloride
Vinyl Chloride
ug/L
12
11
10
9
8
7
6
5
4
3
2
1
0
01/06
01/10
02/03
02/09
03/04
03/09
04/03
04/09
05/03
05/09
06/03
06/09
07/03
07/09
08/03
08/09
09/03
Date Sample


CLK-1
350
300
250
200
150
100
50
0
As,Cd,Sb ug/L
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
Fe,Zn ug/L
96/07
97/03
98/04
99/06
00/06
01/06
02/09
03/09
04/09
05/09
06/09
07/09
08/09
Date Sampled
Sb
As
Cd
Fe
Zn


CLK-2
Fe ug/L
3000
2500
2000
1500
1000
500
0
Zn ug/L
900
800
700
600
500
400
300
200
100
0
97/03
97/09
98/04
98/10
99/06
99/12
00/06
00/12
01/06
01/10
02/03
02/09
03/04
03/09
04/03
04/09
05/03
05/09
06/03
06/09
07/03
07/09
08/03
08/09
09/03
Date Sampled
Fe
Zn


CLK-2
5469.82 FT GW ELEV
CLK-1
5473.64 FT GW ELEV
BSB-A5
5480.12 FT GW ELEV
BSB-A1
5493.41 FT GW ELEV
MBMG-2
5518.97 FT GW ELEV
BSB-A6
5502.30 FT GW ELEV
CLARK TAILINGS
OLD BUTTE LANDFILL
GAS
OE
SD

LEGEND

CLK-1 ● MONIROTING WELL

—— CONTOUR

CONTOUR INTERVAL= 10'

N

	DISPLAYED AS:
COORD SYS/ZONE:	NA
DATUM:	NA
UNITS:	FEET
SOURCE:	PIONEER

SCALE IN FEET
0 300 600

FIGURE 2

PIONEER
TECHNICAL SERVICES, INC.

OLD MUNICIPAL LANDFILL SITE/CLARK TAILINGS FACILITY MARCH 2009

DATE: 6/16/09

	STANDARDS					Median			
	USEPA	MT GW	MBMG-2		B	Exceeds	BLANK		LAB
Analyte	MCL*	HHS	Mean	Median	Mea	td. or Bkd.	Mean	Median	MDL
			n=31		n=8		n=18		
Ag	- -	100	0.1	0.1	(	None	0.8	0.1	0.21
As	50	10	2	2		LK1 (std)	1	1	0.11
Ba	2,000	2,000	133	136		None	1	0	1
Be	4	4	0.2	0.1		CLK1(bkd)	0.1	0.1	0.07
Cd	5	5	0.1	0.1		CLK1(std)	0.03	0.03	0.05
Co	- -	- -	4	4		LK1 (bkd)	4	4	8.5
Cr	100	100	4	4		None	4	4	10
Cu	1,300(a)	1,300	2	2		None	2	2	1.3
Fe	- -	300	122	9		CLK1(std)	10	9	10
Hg	2	2	0.06	0.05	0.	None	0.07	0.05	0.11
Ni	- -	100	7	7		LK2 (bkd)	7	7	13.3
Pb	15(a)	15	0.6	0.5	(	None	0.2	0.5	0.10
Sb	6	6	1	1		None	2	1	0.1
Se	50	50	1.1	0.4	(	None	0.6	0.4	0.53
Tl	2	2	1	1		None	0	1	0.04
V	- -	- -	8	8		None	2	3	2.1
Zn	- -	2,000	12	5		(std)CLK2(bkd)	7	5	5.3
			n=31		n=3		n=4		
Chloride	250,000(s)	- -	56,506	57,000	16,9	CLK2 (bkd)	0.1	0.1	5000
Sulfate	250,000(s)	- -	150,129	144,000	96,2	A6R,C1,2 (std)	2.5	2.5	5000
Nitrate	10,000	10,000	6,941	6,520	5	None	- -	- -	50
COD	- -	- -	36,248	14,000	29,8	1,A6R (bkd)	- -	- -	5000
SC	- -	- -	764	763	4	A6R,C1,2(bkd)	0	0	- -

* MCL definitions: a = action level, not a MCL; s = secon
BDL values calculated as equal to one half the method de

TABLE 5-2 (updated 05/19/2009)
SILVER BOW COUNTY -OLD LANDFILL GROUNDWATER DATA SUMMARY
INORGANIC CONSTITUENTS (ug/L)

	STANDARDS		MBMG-2		BSB-A1		BSB-A5		BSB-A6R		CLK-1		CLK-2		Mean	Median	BLANK		LAB
Analyte	USEPA MCL*	MT GW HHS	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Exceeds Std. or Bkd.	Exceeds Std. or Bkd.	Mean	Median	MDL
			n=31		n=8		n=4		n=0		n=26		n=25				n=18		
Ag	- -	100	0.1	0.1	0.8	0.1	0.1	0.1	- -	- -	0.3	0.1	0.3	0.1	None	None	0.8	0.1	0.21
As	50	10	2	2	2	2	3	2	- -	- -	80	91	2	1	CLK1 (std)	CLK1 (std)	1	1	0.11
Ba	2,000	2,000	133	136	88	79	26	27	- -	- -	31	31	27	26	None	None	1	0	1
Be	4	4	0.2	0.1	0.5	0.6	0.2	0.1	- -	- -	0.4	0.4	0.1	0.1	None	CLK1(bkd)	0.1	0.1	0.07
Cd	5	5	0.1	0.1	0.2	0.2	0.0	0.0	- -	- -	10.4	9.9	0.4	0.3	CLK1(std)	CLK1(std)	0.03	0.03	0.05
Co	- -	- -	4	4	4	4	4	4	- -	- -	75	75	4	4	CLK1 (bkd)	CLK1 (bkd)	4	4	8.5
Cr	100	100	4	4	5	4	4	4	- -	- -	31	4	4	4	CLK1 (bkd)	None	4	4	10
Cu	1,300(a)	1,300	2	2	2	2	2	2	- -	- -	5	2	4	2	None	None	2	2	1.3
Fe	- -	300	122	9	25	22	36	36	- -	- -	21,097	20,700	196	9	CLK1(std)CLK2(bkd)	CLK1(std)	10	9	10
Hg	2	2	0.06	0.05	0.09	0.05	0.10	0.07	- -	- -	0.06	0.05	0.09	0.05	None	None	0.07	0.05	0.11
Ni	- -	100	7	7	7	7	7	7	- -	- -	105	7	17	11	CLK1(std),CLK2(bkd)	CLK2 (bkd)	7	7	13.3
Pb	15(a)	15	0.6	0.5	0.8	0.5	0.8	0.5	- -	- -	1.0	0.5	0.8	0.5	None	None	0.2	0.5	0.10
Sb	6	6	1	1	3	1	2	2	- -	- -	16	1	1	1	CLK1 (std)	None	2	1	0.1
Se	50	50	1.1	0.4	0.6	0.4	0.4	0.4	- -	- -	2.4	0.4	1.7	0.4	CLK1,CLK2(bkd)	None	0.6	0.4	0.53
Tl	2	2	1	1	4	5	3	1	- -	- -	0.4	0.1	0.5	0.1	None	None	0	1	0.04
V	- -	- -	8	8	3	3	3	3	- -	- -	4	3	3	3	None	None	2	3	2.1
Zn	- -	2,000	12	5	12	12	14	12	- -	- -	96,642	9,175	402	539	CLK1(std)CLK2(bkd)	CLK1(std)CLK2(bkd)	7	5	5.3
			n=31		n=33		n=21		n=17		n=23		n=24				n=4		
Chloride	250,000(s)	- -	56,506	57,000	16,967	17,000	25,529	25,000	53,212	54,000	34,248	34,000	57,375	61,300	None	CLK2 (bkd)	0.1	0.1	5000
Sulfate	250,000(s)	- -	150,129	144,000	96,267	88,000	582,429	554,000	1,964,000	1,640,000	1,630,000	1,490,000	837,333	821,000	A5, A6R,C1,2 (std)	A5, A6R,C1,2 (std)	2.5	2.5	5000
Nitrate	10,000	10,000	6,941	6,520	574	520	2,596	2,630	43	25	- -	- -	- -	- -	None	None	- -	- -	50
COD	- -	- -	36,248	14,000	29,800	17,800	50,110	11,500	294,612	39,700	- -	- -	- -	- -	A5,. A6R (bkd)	A1,A6R (bkd)	- -	- -	5000
SC	- -	- -	764	763	489	472	1,188	1,180	3,023	2,780	2,625	2,530	1,817	1,840	A5, A6R,C1,2(bkd)	A5, A6R,C1,2(bkd)	0	0	- -

* MCL definitions: a = action level, not a MCL; s = secondary MCL (asthetics)
BDL values calculated as equal to one half the method detection limit (MDL)

TA

SAMPLE NUMBER WELL ANALYTE (units):	BSB-GW-O1 MBMG-2	B-GW-O9 eld Blank ip Blank	GW PROTECTION STANDARDS	
			USEPA MCL*	MONTANA HHS
DISSOLVED METALS (mg/L)				
Antimony	< 0.005	0001	0.006	0.014
Arsenic	< 0.0050	001	0.05	0.01
Barium	0.1	0003	2	2
Beryllium	< 0.00100	0002	0.004	0.004
Cadmium	< 0.00100	0001	0.005	0.005
Chromium	< 0.0100	0005	0.1	0.1
Cobalt	< 0.01	0005	- - -	- - -
Copper	0.0100	0005	1.3 (a)	1.3
Iron	< 0.03	050	0.3(s)	0.3
Lead	< 0.01000	0001	0.015 (a)	0.015
Mercury	< 0.001	0002	0.002	0.002
Nickel	< 0.01	0005	0.1	0.1
Selenium	< 0.0050	0005	0.05	0.05
Silver	< 0.00500	0005	0.1	0.1
Thallium	< 0.00500	0005	0.002	0.002
Tin	NR	R		
Vanadium	< 0.1000	0001	- - -	- - -
Zinc	< 0.0100	008	5	2
INORGANICS (mg/L)				
Chloride	42	.9 (1)	250	- - -
COD	6.0	R	- - -	- - -
Conductivity (umhos/cm)	755	8	- - -	- - -
Cyanide	< 0.005	R	- - -	0.2
Nitrate\Nitrite - N	6.52	R	10	10
pH	7.2	5		
Sulfate	149	00 (1)	250	- - -
Sulfide	< 1.00	R		
EPA METHOD 8260 (ug/L)				
Acetone	< 20.0	.0	- - -	- - -
Benzene	< 1.0	0	5	5
Carbon Disulfide	< 1.0	0	- - -	- - -
Chloroethane	< 1.0	0	- - -	- - -
Chloroform	< 1.0	0	- - -	70
Chlormethane	< 1.0	0	- - -	- - -
1,4-Dichlorobenzene	< 1.0	0	75	75
Dichlorodiflouromethane	< 1.0	0	- - -	1000
1,1-Dichloroethane	< 1.0	0	- - -	- - -
1,2-Dichloroethane	< 1.0	0	5	4
cis-1,2-Dichloroethene	< 1.0	0	70	70
trans-1,2-Dichloroethene	< 1.0	0	100	100
1,2-Dichloropropane	< 1.0	0	5	5
4-Isopropyltoluene	< NR	R	- - -	- - -
Methylene Chloride	< 1.0	0	5	30
Naphthalene	< 1.0	0	- - -	100
Tetrachloroethene	< 1.0	0	5	5
Trichloroethene	< 1.0	0	5	5
1,2,4-Trimethylbenzene	NR	R	- - -	- - -
Vinyl Chloride	< 1.0	0	2	0.2
EPA METHOD 8270 (ug/L)				
bis(2-ethylhexyl)Phthalate	< 10	R	6	6
EPA METHOD 8151 (ug/L)	ND	R		
EPA METHOD 8081 (ug/L)	ND	R		

* MCL definitions: a = action level, not an MCL; s = secondary MCL (aesthetics)
NA = Not enough sample available for analysis
NR = Analysis Not Requested
ND = Analyte Not Detected
J = Estimated Quantity. Anlyte present, but less than the practical quantitation limit (P
NS= Sample Not Collected (Frozen Well-CLK-1)
SA = Sample Not Taken
(1) Samples were reran past holding time by Pace on 4/27/09 and were non-detect.

TABLE I: ANALYTICAL DATA FOR GROUNDWATER SAMPLES, OLD SILVER BOW COUNTY LANDFILL
DATE SAMPLED: March , 24 2009

SAMPLE NUMBER	BSB-GW-O1	BSB-GW-O2	BSB-GW-O3	BSB-GW-O4	BSB-GW-O5	BSB-GW-O6	BSB-GW-07	BSB-GW-08	BSB-GW-O9	GW PROTECTION STANDARDS	
WELL	MBMG-2	BSB-A1	BSB-A5	BSB-A6-R	CLK-1	CLK-2	BSB-A6R DUPE	CLK-2 DUPE	Field Blank Trip Blank	USEPA MCL*	MONTANA HHS
ANALYTE (units):											
DISSOLVED METALS (mg/L)											
Antimony	< 0.005	NR	NR	NR	< 0.0001	< 0.0001	NR	< 0.0001	< 0.0001	0.006	0.014
Arsenic	< 0.0050	NR	NR	NR	0.110	0.0010	NR	0.0010	< 0.001	0.05	0.01
Barium	0.1	NR	NR	NR	0.026	0.019	NR	0.019	< 0.0003	2	2
Beryllium	< 0.00100	NR	NR	NR	0.00041	< 0.0002	NR	< 0.0002	< 0.0002	0.004	0.004
Cadmium	< 0.00100	NR	NR	NR	0.018	0.00095	NR	0.00098	< 0.0001	0.005	0.005
Chromium	< 0.0100	NR	NR	NR	< 0.0005	< 0.0005	NR	< 0.0005	< 0.0005	0.1	0.1
Cobalt	< 0.01	NR	NR	NR	0.058	< 0.0005	NR	< 0.0005	< 0.0005	- - -	- - -
Copper	0.0100	NR	NR	NR	0.0007	0.0023	NR	0.0023	< 0.0005	1.3 (a)	1.3
Iron	< 0.03	NR	NR	NR	19.2	< 0.0500	NR	< 0.0500	< 0.050	0.3(s)	0.3
Lead	< 0.01000	NR	NR	NR	< 0.0001	< 0.0001	NR	< 0.0001	< 0.0001	0.015 (a)	0.015
Mercury	< 0.001	NR	NR	NR	< 0.0002	< 0.0002	NR	< 0.0002	< 0.0002	0.002	0.002
Nickel	< 0.01	NR	NR	NR	0.0470	0.0260	NR	0.0260	< 0.0005	0.1	0.1
Selenium	< 0.0050	NR	NR	NR	< 0.0005	< 0.0005	NR	< 0.0005	< 0.0005	0.05	0.05
Silver	< 0.00500	NR	NR	NR	< 0.0005	< 0.0005	NR	< 0.0005	< 0.0005	0.1	0.1
Thallium	< 0.00500	NR	NR	NR	< 0.0005	< 0.0005	NR	< 0.0005	< 0.0005	0.002	0.002
Tin	NR	NR	NR	NR	NR	NR	NR	NR	NR		
Vanadium	< 0.1000	NR	NR	NR	0.00035	0.0023	NR	0.0023	< 0.0001	- - -	- - -
Zinc	< 0.0100	NR	NR	NR	62.7	0.550	NR	0.550	0.008	5	2
INORGANICS (mg/L)											
Chloride	42	16	24	51	34	58	NR	58	31.9 (1)	250	- - -
COD	6.0	2.0	11.0	282	NR	NR	NR	NR	NR	- - -	- - -
Conductivity (umhos/cm)	755	466	1180	2780	2250	1730	NR	1720	3.8	- - -	- - -
Cyanide	< 0.005	< 0.005	< 0.005	0.039	NR	NR	NR	NR	NR	- - -	0.2
Nitrate\Nitrite - N	6.52	0.46	1.63	< 0.05	NR	NR	NR	NR	NR	10	10
pH	7.2	7.1	6.0	6.1	6.4	6.6	NR	6.5	5.5		
Sulfate	149	78	538	1640	350	804	NR	746	1200 (1)	250	- - -
Sulfide	< 1.00	< 1.00	< 1.00	< 1.00	NR	NR	NR	NR	NR		
EPA METHOD 8260 (ug/L)											
Acetone	< 20.0	< 20.0	< 20.0	< 20.0	NR	NR	< 20.0	NR	< 20.0	- - -	- - -
Benzene	< 1.0	< 1.0	< 1.0	(ELI 0.64 J)< 1.0	NR	NR	(ELI 0.62 J)< 1.0	NR	< 1.0	5	5
Carbon Disulfide	< 1.0	< 1.0	< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	- - -	- - -
Chloroethane	< 1.0	< 1.0	< 1.0	(ELI 0.51 J)< 1.0	NR	NR	(ELI 0.50 J)< 1.0	NR	< 1.0	- - -	- - -
Chloroform	< 1.0	< 1.0	< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	- - -	70
Chlormethane	< 1.0	< 1.0	< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	- - -	- - -
1,4-Dichlorobenzene	< 1.0	< 1.0	< 1.0	2.8	NR	NR	2.8	NR	< 1.0	75	75
Dichlorodiflouromethane	< 1.0	< 1.0	< 1.0	2.0	NR	NR	2.0	NR	< 1.0	- - -	1000
1,1-Dichloroethane	< 1.0	< 1.0	< 1.0	1.5	NR	NR	1.4	NR	< 1.0	- - -	- - -
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	5	4
cis-1,2-Dichloroethene	< 1.0	< 1.0	(ELI 0.68 J)< 1.0	8.2	NR	NR	8.1	NR	< 1.0	70	70
trans-1,2-Dichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	100	100
1,2-Dichloropropane	< 1.0	< 1.0	< 1.0	(ELI 0.48. J)< 1.0	NR	NR	(ELI 0.52. J)< 1.0	NR	< 1.0	5	5
4-Isopropyltoluene	< NR	NR	NR	NR	NR	NR	NR	NR	NR	- - -	- - -
Methylene Chloride	< 1.0	< 1.0	< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	5	30
Naphthalene	< 1.0	< 1.0	< 1.0	(ELI 0.72. J)< 1.0	NR	NR	(ELI 0.92. J)< 1.0	NR	< 1.0	- - -	100
Tetrachloroethene	< 1.0	< 1.0	(ELI 0.44 J)< 1.0	< 1.0	NR	NR	< 1.0	NR	< 1.0	5	5
Trichloroethene	< 1.0	< 1.0	< 1.0	(ELI 0.64 J)< 1.0	NR	NR	(ELI 0.56 J)< 1.0	NR	< 1.0	5	5
1,2,4-Trimethylbenzene	NR	NR	NR	NR	NR	NR	NR	NR	NR	- - -	- - -
Vinyl Chloride	< 1.0	< 1.0	< 1.0	6.9	NR	NR	6.8	NR	< 1.0	2	0.2
EPA METHOD 8270 (ug/L)											
bis(2-ethylhexyl)Phthalate	< 10	< 10	< 10	< 10	NR	NR	< 10	NR	NR	6	6
EPA METHOD 8151 (ug/L)	ND	ND	ND	ND	NR	NR	NR	NR	NR		
EPA METHOD 8081 (ug/L)	ND	ND	ND	ND	NR	NR	NR	NR	NR		

* MCL definitions: a = action level, not an MCL; s = secondary MCL (aesthetics)
NA = Not enough sample available for analysis
NR = Analysis Not Requested
ND = Analyte Not Detected
J = Estimated Quantity. Anlyte present, but less than the practical quantitation limit (PQL).
NS= Sample Not Collected (Frozen Well-CLK-1)
SA = Sample Not Taken
(1) Samples were reran past holding time by Pace on 4/27/09 and were non-detect.

** REPORT **

Pioneer Technical Services
Brad Hollamon
63 1/2 W Broadway
Butte MT 59701

RECEIVED
APR 30 2009

ENERGY LABORATORIES, INC. * 1120 S 27th St * PO Box 30916 * Billings, MT 59107-0916
Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * eli@energylab.com

ANALYTICAL SUMMARY REPORT

April 09, 2009

Brad Hollamon
Butte Silver Bow Public Works Dept
126 West Granite
Butte, MT 59701

Workorder No.: B09031882

Project Name: Old Landfill

Energy Laboratories Inc received the following 6 samples for Butte Silver Bow Public Works Dept on 3/26/2009 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B09031882-001	BSB-GW-01	03/24/09 12:20	03/26/09	Aqueous	Metals by ICP/ICPMS, Dissolved Anions by ion chromatography Cyanide, Total Manual Distillation Total Cyanide Distillation Chemical Oxygen Demand Conductivity Mercury, Dissolved 8151-Herbicides, Chlorinated Nitrogen, Nitrate + Nitrite Polychlorinated Biphenyls (PCB's) pH Digestion, Mercury by CVAA Separatory Funnel Liquid Liquid Ext. Separatory Funnel Liquid Liquid Ext. 8081A-Organochlorine Pesticides Sulfide, Iodine Titrimetric Separatory Funnel Liquid-Liquid Ext. Semi-Volatile Organic Compounds - 40 CFR Part 258 8260-Volatile Organic Comp, 40 CFR Part 258 App II
B09031882-002	BSB-GW-02	03/24/09 14:50	03/26/09	Aqueous	Anions by ion chromatography Cyanide, Total Manual Distillation Total Cyanide Distillation Chemical Oxygen Demand Conductivity 8151-Herbicides, Chlorinated Nitrogen, Nitrate + Nitrite Polychlorinated Biphenyls (PCB's) pH Separatory Funnel Liquid Liquid Ext. Separatory Funnel Liquid Liquid Ext. 8081A-Organochlorine Pesticides Sulfide, Iodine Titrimetric Separatory Funnel Liquid-Liquid Ext. Semi-Volatile Organic Compounds - 40 CFR Part 258 8260-Volatile Organic Comp, 40 CFR Part 258 App II
B09031882-003	BSB-GW-03	03/24/09 15:10	03/26/09	Aqueous	Same As Above
B09031882-004	BSB-GW-04	03/25/09 11:40	03/26/09	Aqueous	Same As Above
B09031882-005	BSB-GW-07	03/25/09 12:00	03/26/09	Aqueous	8260-Volatile Organic Comp, 40 CFR Part 258 App II
B09031882-006	Trip Blank Lot #031009, B-JSS SHPO241	03/24/09 12:20	03/26/09	Trip Blank	Same As Above

ENERGY LABORATORIES, INC. * 1120 S 27th St * PO Box 30916 * Billings, MT 59107-0916
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ANALYTICAL SUMMARY REPORT

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By:

LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/24/09 12:20
Lab ID:	B09031882-001	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-01 MBMG-2	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500 H	03/26/09 15:19 / kh
Conductivity	755	umhos/cm		1		A2510 B	03/26/09 15:16 / kh
INORGANICS							
Chloride	42	mg/L		1		E300.0	04/02/09 20:27 / mlb
Sulfate	149	mg/L		1		E300.0	04/02/09 20:27 / mlb
Cyanide, Total	ND	mg/L		0.005		Kelada mod	03/26/09 15:13 / kjp
Sulfide	ND	mg/L		1		A4500-S E	03/27/09 08:00 / afb
AGGREGATE ORGANICS							
Oxygen Demand, Chemical (COD)	6	mg/L		1		E410.4	03/31/09 16:00 / bls
NUTRIENTS							
Nitrogen, Nitrate+Nitrite as N	6.52	mg/L		0.05		E353.2	03/27/09 14:46 / bls
METALS, DISSOLVED							
Antimony	ND	mg/L		0.005		E200.8	03/28/09 07:18 / aje
Arsenic	ND	mg/L		0.005		E200.8	03/28/09 07:18 / aje
Barium	0.1	mg/L		0.1		E200.8	03/28/09 07:18 / aje
Beryllium	ND	mg/L		0.001		E200.7	03/28/09 01:06 / tao
Cadmium	ND	mg/L		0.001		E200.8	03/28/09 07:18 / aje
Chromium	ND	mg/L		0.01		E200.8	03/28/09 07:18 / aje
Cobalt	ND	mg/L		0.01		E200.8	03/28/09 07:18 / aje
Copper	ND	mg/L		0.01		E200.8	03/28/09 07:18 / aje
Iron	ND	mg/L		0.03		E200.7	03/28/09 01:06 / tao
Lead	ND	mg/L		0.01		E200.8	03/28/09 07:18 / aje
Mercury	ND	mg/L		0.001		SW7470A	04/01/09 12:05 / jjw
Nickel	ND	mg/L		0.01		E200.8	03/28/09 07:18 / aje
Selenium	ND	mg/L		0.005		E200.8	03/28/09 07:18 / aje
Silver	ND	mg/L		0.005		E200.8	03/28/09 07:18 / aje
Thallium	ND	mg/L		0.005		E200.8	03/28/09 07:18 / aje
Vanadium	ND	mg/L		0.1		E200.8	03/28/09 07:18 / aje
Zinc	ND	mg/L		0.01		E200.8	03/28/09 07:18 / aje
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	04/01/09 14:40 / lem
Acetonitrile	ND	ug/L		20		SW8260B	04/01/09 14:40 / lem
Acrolein	ND	ug/L		20		SW8260B	04/01/09 14:40 / lem
Acrylonitrile	ND	ug/L		20		SW8260B	04/01/09 14:40 / lem
Allyl chloride	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Benzene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Bromochloromethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-001
Client Sample ID: BSB-GW-01

Report Date: 04/09/09
Collection Date: 03/24/09 12:20
DateReceived: 03/26/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Bromoform	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Bromomethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Carbon disulfide	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Chlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Chloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Chloroform	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Chloromethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Chloroprene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Dibromomethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,3-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,4-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,1-Dichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
cis-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,2-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,3-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
2,2-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,1-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Ethylbenzene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Ethyl methacrylate	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Hexachlorobutadiene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
2-Hexanone	ND	ug/L		20		SW8260B	04/01/09 14:40 / lem
Iodomethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Isobutanol	ND	ug/L		50		SW8260B	04/01/09 14:40 / lem
Methacrylonitrile	ND	ug/L		20		SW8260B	04/01/09 14:40 / lem
Methyl ethyl ketone	ND	ug/L		20		SW8260B	04/01/09 14:40 / lem
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	04/01/09 14:40 / lem
Methyl methacrylate	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Methylene chloride	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Naphthalene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Pentachloroethane	ND	ug/L		2.0		SW8260B	04/01/09 14:40 / lem

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LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/24/09 12:20
Lab ID:	B09031882-001	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-01	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Propionitrile	ND	ug/L		20		SW8260B	04/01/09 14:40 / lem
Styrene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Tetrachloroethene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Toluene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,2,4-Trichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,1,1-Trichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Trichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Vinyl acetate	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Vinyl chloride	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
m+p-Xylenes	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
o-Xylene	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Xylenes, Total	ND	ug/L		1.0		SW8260B	04/01/09 14:40 / lem
Surr: 1,2-Dichloroethane-d4	92.0	%REC		70-130		SW8260B	04/01/09 14:40 / lem
Surr: Dibromofluoromethane	97.0	%REC		77-126		SW8260B	04/01/09 14:40 / lem
Surr: p-Bromofluorobenzene	96.0	%REC		76-127		SW8260B	04/01/09 14:40 / lem
Surr: Toluene-d8	98.0	%REC		79-122		SW8260B	04/01/09 14:40 / lem
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4,5-Tetrachlorobenzene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
1,2,4-Trichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
1,2-Dichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
1,3,5-Trinitrobenzene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
1,3-Dichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
1,3-Dinitrobenzene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
1,4-Benzenediamine	ND	ug/L	P			SW8270C	03/31/09 00:05 / smm
1,4-Dichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
1,4-Naphthoquinone	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
1-Methylnaphthalene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
1-Naphthylamine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2,3,4,6-Tetrachlorophenol	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2,4,5-Trichlorophenol	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2,4,6-Trichlorophenol	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2,4-Dichlorophenol	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2,4-Dimethylphenol	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2,4-Dinitrophenol	ND	ug/L		50		SW8270C	03/31/09 00:05 / smm
2,4-Dinitrotoluene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2,6-Dichlorophenol	ND	ug/L		10		SW8270C	04/01/09 19:29 / dsm
2,6-Dinitrotoluene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm

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P - Poor method performance. Method validations have shown no recoveries at low levels or erratic method performance.

MCL - Maximum contaminant level.

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LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/24/09 12:20
Lab ID:	B09031882-001	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-01	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
2-Acetylaminofluorene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2-Chloronaphthalene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2-Chlorophenol	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2-Methylnaphthalene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2-Naphthylamine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2-Nitroaniline	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2-Nitrophenol	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
2-Picoline	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
3,3´-Dichlorobenzidine	ND	ug/L		20		SW8270C	03/31/09 00:05 / smm
3,3´-Dimethylbenzidine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
3-Methylcholanthrene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
3-Nitroaniline	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
4,6-Dinitro-2-methylphenol	ND	ug/L		50		SW8270C	03/31/09 00:05 / smm
4-Aminobiphenyl	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
4-Bromophenyl phenyl ether	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
4-Chloro-2-methylphenol	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
4-Chloro-3-methylphenol	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
4-Chlorophenol	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
4-Chlorophenyl phenyl ether	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
4-Nitroaniline	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
4-Nitrophenol	ND	ug/L		50		SW8270C	03/31/09 00:05 / smm
4-Nitroquinoline-n-oxide	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
5-Nitro-o-toluidine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
7,12-Dimethylbenz(a)anthracene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
a,a-Dimethylphenethylamine	ND	ug/L	P			SW8270C	03/31/09 00:05 / smm
Acenaphthene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Acenaphthylene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Acetophenone	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Aniline	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Anthracene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Aramite	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Azobenzene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Benzidine	ND	ug/L		20		SW8270C	03/31/09 00:05 / smm
Benzo(a)anthracene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Benzo(a)pyrene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Benzo(b)fluoranthene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Benzo(g,h,i)perylene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Benzo(k)fluoranthene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Benzyl alcohol	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
bis(-2-chloroethoxy)Methane	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
bis(-2-chloroethyl)Ether	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
bis(2-chloroisopropyl)Ether	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
bis(2-ethylhexyl)Phthalate	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm

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MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/24/09 12:20
Lab ID:	B09031882-001	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-01	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
Butylbenzylphthalate	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Chlorobenzilate	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Chrysene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Diallate	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Dibenzo(a,h)anthracene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Dibenzofuran	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Diethyl phthalate	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Dimethoate	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Dimethyl phthalate	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Di-n-butyl phthalate	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Di-n-octyl phthalate	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Diphenylamine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Disulfoton	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Ethyl methanesulfonate	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Famphur	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Fluoranthene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Fluorene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Hexachlorobenzene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Hexachlorobutadiene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Hexachlorocyclopentadiene	ND	ug/L		20		SW8270C	03/31/09 00:05 / smm
Hexachloroethane	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Hexachlorophene	ND	ug/L	P			SW8270C	03/31/09 00:05 / smm
Hexachloropropene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Indeno(1,2,3-cd)pyrene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Isophorone	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Isosafrole	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
m+p-Cresols	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Methapyrilene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Methyl methanesulfonate	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Methyl parathion	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Naphthalene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Nitrobenzene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
n-Nitrosodiethylamine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
n-Nitrosodimethylamine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
n-Nitroso-di-n-butylamine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
n-Nitroso-di-n-propylamine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
n-Nitrosodiphenylamine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
n-Nitrosomethylethylamine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
n-Nitrosomorpholine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
n-Nitrosopiperidine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
n-Nitrosopyrrolidine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
o,o,o-Triethyl phosphorothioate	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
o-Cresol	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm

Report Definitions:

RL - Analyte reporting limit.

QCL - Quality control limit.

P - Poor method performance. Method validations have shown no recoveries at low levels or erratic method performance.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/24/09 12:20
Lab ID:	B09031882-001	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-01	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
o-Toluidine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
p-(dimethylamino)Azobenzene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Parathion	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
p-Chloroaniline	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Pentachlorobenzene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Pentachloronitrobenzene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Pentachlorophenol	ND	ug/L		50		SW8270C	03/31/09 00:05 / smm
Phenacetin	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Phenanthrene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Phenol	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Phorate	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Pronamide	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Pyrene	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Pyridine	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Safrole	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Sulfotep	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Thionazin	ND	ug/L		10		SW8270C	03/31/09 00:05 / smm
Surr: 2,4,6-Tribromophenol	47.0	%REC		21-130		SW8270C	03/31/09 00:05 / smm
Surr: 2-Fluorobiphenyl	48.0	%REC		28-107		SW8270C	03/31/09 00:05 / smm
Surr: 2-Fluorophenol	36.0	%REC		20-56		SW8270C	03/31/09 00:05 / smm
Surr: Nitrobenzene-d5	46.0	%REC		32-94		SW8270C	03/31/09 00:05 / smm
Surr: Phenol-d5	24.0	%REC		19-45		SW8270C	03/31/09 00:05 / smm
Surr: Terphenyl-d14	39.0	%REC		32-122		SW8270C	03/31/09 00:05 / smm
8081A-ORGANOCHLORINE PESTICIDES							
4,4´-DDD	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
4,4´-DDE	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
4,4´-DDT	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
Aldrin	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
alpha-BHC	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
alpha-Chlordane	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
beta-BHC	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
Chlordane	ND	ug/L		0.50		SW8081A	03/30/09 17:39 / jjb
delta-BHC	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
Dieldrin	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
Endosulfan I	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
Endosulfan II	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
Endosulfan sulfate	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
Endrin	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
Endrin aldehyde	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
Endrin ketone	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
gamma-BHC (Lindane)	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
gamma-Chlordane	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb

Report Definitions:
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ENERGY LABORATORIES

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LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-001
Client Sample ID: BSB-GW-01

Report Date: 04/09/09
Collection Date: 03/24/09 12:20
DateReceived: 03/26/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
8081A-ORGANOCHLORINE PESTICIDES							
Heptachlor	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
Heptachlor epoxide	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
Isodrin	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
Kepone	ND	ug/L		0.10		SW8081A	03/30/09 17:39 / jjb
Methoxychlor	ND	ug/L		0.050		SW8081A	03/30/09 17:39 / jjb
Toxaphene	ND	ug/L		5.0		SW8081A	03/30/09 17:39 / jjb
Surr: Decachlorobiphenyl	99.0	%REC		44-119		SW8081A	03/30/09 17:39 / jjb
Surr: Tetrachloro-m-xylene	78.0	%REC		40-120		SW8081A	03/30/09 17:39 / jjb
HERBICIDES, CHLORINATED							
2,4-D	ND	ug/L		1.0		SW8151A	04/01/09 07:38 / ldw
Dinoseb	ND	ug/L		1.0		SW8151A	04/01/09 07:38 / ldw
2,4,5-T	ND	ug/L		0.20		SW8151A	04/01/09 07:38 / ldw
2,4,5-TP (Silvex)	ND	ug/L		0.20		SW8151A	04/01/09 07:38 / ldw
Surr: DCAA	121	%REC		57-125		SW8151A	04/01/09 07:38 / ldw
POLYCHLORINATED BIPHENYLS (PCBS)							
Aroclor 1016	ND	ug/L		0.50		SW8082	03/30/09 17:39 / jjb
Aroclor 1221	ND	ug/L		0.50		SW8082	03/30/09 17:39 / jjb
Aroclor 1232	ND	ug/L		0.50		SW8082	03/30/09 17:39 / jjb
Aroclor 1242	ND	ug/L		0.50		SW8082	03/30/09 17:39 / jjb
Aroclor 1248	ND	ug/L		0.50		SW8082	03/30/09 17:39 / jjb
Aroclor 1254	ND	ug/L		0.50		SW8082	03/30/09 17:39 / jjb
Aroclor 1260	ND	ug/L		0.50		SW8082	03/30/09 17:39 / jjb
Aroclor 1262	ND	ug/L		0.50		SW8082	03/30/09 17:39 / jjb
Aroclor 1268	ND	ug/L		0.50		SW8082	03/30/09 17:39 / jjb
Surr: Decachlorobiphenyl	99.0	%REC		44-119		SW8082	03/30/09 17:39 / jjb
Surr: Tetrachloro-m-xylene	78.0	%REC		40-120		SW8082	03/30/09 17:39 / jjb

Report Definitions:
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LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-002
Client Sample ID: BSB-GW-02

BSB-A1

Report Date: 04/09/09
Collection Date: 03/24/09 14:50
DateReceived: 03/26/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.1	s.u.		0.1		A4500 H	03/26/09 15:20 / kh
Conductivity	466	umhos/cm		1		A2510 B	03/26/09 15:19 / kh
INORGANICS							
Chloride	16	mg/L		1		E300.0	04/02/09 20:39 / mlb
Sulfate	78	mg/L		1		E300.0	04/02/09 20:39 / mlb
Cyanide, Total	ND	mg/L		0.005		Kelada mod	03/26/09 15:21 / kjp
Sulfide	ND	mg/L		1		A4500-S E	03/27/09 08:00 / afb
AGGREGATE ORGANICS							
Oxygen Demand, Chemical (COD)	2	mg/L		1		E410.4	03/31/09 16:00 / bls
NUTRIENTS							
Nitrogen, Nitrate+Nitrite as N	0.46	mg/L		0.05		E353.2	03/27/09 14:49 / bls
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	04/01/09 15:08 / lem
Acetonitrile	ND	ug/L		20		SW8260B	04/01/09 15:08 / lem
Acrolein	ND	ug/L		20		SW8260B	04/01/09 15:08 / lem
Acrylonitrile	ND	ug/L		20		SW8260B	04/01/09 15:08 / lem
Allyl chloride	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Benzene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Bromochloromethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Bromodichloromethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Bromoform	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Bromomethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Carbon disulfide	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Chlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Chloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Chloroform	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Chloromethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Chloroprene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Dibromomethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,3-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,4-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem

Report Definitions:
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ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-002
Client Sample ID: BSB-GW-02

Report Date: 04/09/09
Collection Date: 03/24/09 14:50
DateReceived: 03/26/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
1,1-Dichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
cis-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,2-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,3-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
2,2-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,1-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Ethylbenzene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Ethyl methacrylate	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Hexachlorobutadiene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
2-Hexanone	ND	ug/L		20		SW8260B	04/01/09 15:08 / lem
Iodomethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Isobutanol	ND	ug/L		50		SW8260B	04/01/09 15:08 / lem
Methacrylonitrile	ND	ug/L		20		SW8260B	04/01/09 15:08 / lem
Methyl ethyl ketone	ND	ug/L		20		SW8260B	04/01/09 15:08 / lem
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	04/01/09 15:08 / lem
Methyl methacrylate	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Methylene chloride	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Naphthalene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Pentachloroethane	ND	ug/L		2.0		SW8260B	04/01/09 15:08 / lem
Propionitrile	ND	ug/L		20		SW8260B	04/01/09 15:08 / lem
Styrene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Tetrachloroethene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Toluene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,2,4-Trichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,1,1-Trichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Trichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Vinyl acetate	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Vinyl chloride	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
m+p-Xylenes	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
o-Xylene	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Xylenes, Total	ND	ug/L		1.0		SW8260B	04/01/09 15:08 / lem
Surr: 1,2-Dichloroethane-d4	94.0	%REC		70-130		SW8260B	04/01/09 15:08 / lem
Surr: Dibromofluoromethane	97.0	%REC		77-126		SW8260B	04/01/09 15:08 / lem

Report Definitions:
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QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-002
Client Sample ID: BSB-GW-02

Report Date: 04/09/09
Collection Date: 03/24/09 14:50
DateReceived: 03/26/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: p-Bromofluorobenzene	96.0	%REC		76-127		SW8260B	04/01/09 15:08 / lem
Surr: Toluene-d8	99.0	%REC		79-122		SW8260B	04/01/09 15:08 / lem
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4,5-Tetrachlorobenzene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
1,2,4-Trichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
1,2-Dichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
1,3,5-Trinitrobenzene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
1,3-Dichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
1,3-Dinitrobenzene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
1,4-Benzenediamine	ND	ug/L	P			SW8270C	03/31/09 01:06 / smm
1,4-Dichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
1,4-Naphthoquinone	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
1-Methylnaphthalene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
1-Naphthylamine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2,3,4,6-Tetrachlorophenol	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2,4,5-Trichlorophenol	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2,4,6-Trichlorophenol	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2,4-Dichlorophenol	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2,4-Dimethylphenol	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2,4-Dinitrophenol	ND	ug/L		50		SW8270C	03/31/09 01:06 / smm
2,4-Dinitrotoluene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2,6-Dichlorophenol	ND	ug/L		10		SW8270C	04/01/09 20:00 / dsm
2,6-Dinitrotoluene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2-Acetylaminofluorene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2-Chloronaphthalene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2-Chlorophenol	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2-Methylnaphthalene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2-Naphthylamine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2-Nitroaniline	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2-Nitrophenol	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
2-Picoline	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
3,3´-Dichlorobenzidine	ND	ug/L		20		SW8270C	03/31/09 01:06 / smm
3,3´-Dimethylbenzidine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
3-Methylcholanthrene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
3-Nitroaniline	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
4,6-Dinitro-2-methylphenol	ND	ug/L		50		SW8270C	03/31/09 01:06 / smm
4-Aminobiphenyl	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
4-Bromophenyl phenyl ether	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
4-Chloro-2-methylphenol	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
4-Chloro-3-methylphenol	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
4-Chlorophenol	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
4-Chlorophenyl phenyl ether	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm

Report Definitions:

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QCL - Quality control limit.
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MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/24/09 14:50
Lab ID:	B09031882-002	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-02	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
4-Nitroaniline	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
4-Nitrophenol	ND	ug/L		50		SW8270C	03/31/09 01:06 / smm
4-Nitroquinoline-n-oxide	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
5-Nitro-o-toluidine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
7,12-Dimethylbenz(a)anthracene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
a,a-Dimethylphenethylamine	ND	ug/L	P			SW8270C	03/31/09 01:06 / smm
Acenaphthene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Acenaphthylene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Acetophenone	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Aniline	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Anthracene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Aramite	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Azobenzene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Benzidine	ND	ug/L		20		SW8270C	03/31/09 01:06 / smm
Benzo(a)anthracene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Benzo(a)pyrene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Benzo(b)fluoranthene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Benzo(g,h,i)perylene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Benzo(k)fluoranthene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Benzyl alcohol	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
bis(-2-chloroethoxy)Methane	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
bis(-2-chloroethyl)Ether	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
bis(2-chloroisopropyl)Ether	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
bis(2-ethylhexyl)Phthalate	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Butylbenzylphthalate	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Chlorobenzilate	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Chrysene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Diallate	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Dibenzo(a,h)anthracene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Dibenzofuran	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Diethyl phthalate	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Dimethoate	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Dimethyl phthalate	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Di-n-butyl phthalate	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Di-n-octyl phthalate	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Diphenylamine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Disulfoton	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Ethyl methanesulfonate	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Famphur	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Fluoranthene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Fluorene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Hexachlorobenzene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Hexachlorobutadiene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm

Report Definitions:

RL - Analyte reporting limit.

QCL - Quality control limit.

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MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/24/09 14:50
Lab ID:	B09031882-002	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-02	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
Hexachlorocyclopentadiene	ND	ug/L		20		SW8270C	03/31/09 01:06 / smm
Hexachloroethane	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Hexachlorophene	ND	ug/L	P			SW8270C	03/31/09 01:06 / smm
Hexachloropropene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Indeno(1,2,3-cd)pyrene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Isophorone	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Isosafrole	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
m+p-Cresols	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Methapyrilene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Methyl methanesulfonate	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Methyl parathion	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Naphthalene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Nitrobenzene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
n-Nitrosodiethylamine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
n-Nitrosodimethylamine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
n-Nitroso-di-n-butylamine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
n-Nitroso-di-n-propylamine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
n-Nitrosodiphenylamine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
n-Nitrosomethylethylamine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
n-Nitrosomorpholine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
n-Nitrosopiperidine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
n-Nitrosopyrrolidine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
o,o,o-Triethyl phosphorothioate	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
o-Cresol	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
o-Toluidine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
p-(dimethylamino)Azobenzene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Parathion	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
p-Chloroaniline	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Pentachlorobenzene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Pentachloronitrobenzene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Pentachlorophenol	ND	ug/L		50		SW8270C	03/31/09 01:06 / smm
Phenacetin	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Phenanthrene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Phenol	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Phorate	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Pronamide	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Pyrene	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Pyridine	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Safrole	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Sulfotep	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Thionazin	ND	ug/L		10		SW8270C	03/31/09 01:06 / smm
Surr: 2,4,6-Tribromophenol	64.0	%REC		21-130		SW8270C	03/31/09 01:06 / smm
Surr: 2-Fluorobiphenyl	61.0	%REC		28-107		SW8270C	03/31/09 01:06 / smm

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ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-002
Client Sample ID: BSB-GW-02

Report Date: 04/09/09
Collection Date: 03/24/09 14:50
DateReceived: 03/26/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
Surr: 2-Fluorophenol	41.0	%REC		20-56		SW8270C	03/31/09 01:06 / smm
Surr: Nitrobenzene-d5	60.0	%REC		32-94		SW8270C	03/31/09 01:06 / smm
Surr: Phenol-d5	33.0	%REC		19-45		SW8270C	03/31/09 01:06 / smm
Surr: Terphenyl-d14	57.0	%REC		32-122		SW8270C	03/31/09 01:06 / smm
8081A-ORGANOCHLORINE PESTICIDES							
4,4´-DDD	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
4,4´-DDE	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
4,4´-DDT	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Aldrin	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
alpha-BHC	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
alpha-Chlordane	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
beta-BHC	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Chlordane	ND	ug/L		0.50		SW8081A	03/30/09 18:07 / jjb
delta-BHC	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Dieldrin	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Endosulfan I	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Endosulfan II	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Endosulfan sulfate	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Endrin	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Endrin aldehyde	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Endrin ketone	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
gamma-BHC (Lindane)	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
gamma-Chlordane	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Heptachlor	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Heptachlor epoxide	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Isodrin	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Kepone	ND	ug/L		0.10		SW8081A	03/30/09 18:07 / jjb
Methoxychlor	ND	ug/L		0.050		SW8081A	03/30/09 18:07 / jjb
Toxaphene	ND	ug/L		5.0		SW8081A	03/30/09 18:07 / jjb
Surr: Decachlorobiphenyl	101	%REC		44-119		SW8081A	03/30/09 18:07 / jjb
Surr: Tetrachloro-m-xylene	80.0	%REC		40-120		SW8081A	03/30/09 18:07 / jjb
HERBICIDES, CHLORINATED							
2,4-D	ND	ug/L		1.0		SW8151A	04/01/09 09:16 / ldw
Dinoseb	ND	ug/L		1.0		SW8151A	04/01/09 09:16 / ldw
2,4,5-T	ND	ug/L		0.20		SW8151A	04/01/09 09:16 / ldw
2,4,5-TP (Silvex)	ND	ug/L		0.20		SW8151A	04/01/09 09:16 / ldw
Surr: DCAA	111	%REC		57-125		SW8151A	04/01/09 09:16 / ldw
POLYCHLORINATED BIPHENYLS (PCBS)							
Aroclor 1016	ND	ug/L		0.50		SW8082	03/30/09 18:07 / jjb

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LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-002
Client Sample ID: BSB-GW-02

Report Date: 04/09/09
Collection Date: 03/24/09 14:50
DateReceived: 03/26/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
POLYCHLORINATED BIPHENYLS (PCBS)							
Aroclor 1221	ND	ug/L		0.50		SW8082	03/30/09 18:07 / jjb
Aroclor 1232	ND	ug/L		0.50		SW8082	03/30/09 18:07 / jjb
Aroclor 1242	ND	ug/L		0.50		SW8082	03/30/09 18:07 / jjb
Aroclor 1248	ND	ug/L		0.50		SW8082	03/30/09 18:07 / jjb
Aroclor 1254	ND	ug/L		0.50		SW8082	03/30/09 18:07 / jjb
Aroclor 1260	ND	ug/L		0.50		SW8082	03/30/09 18:07 / jjb
Aroclor 1262	ND	ug/L		0.50		SW8082	03/30/09 18:07 / jjb
Aroclor 1268	ND	ug/L		0.50		SW8082	03/30/09 18:07 / jjb
Surr: Decachlorobiphenyl	101	%REC		44-119		SW8082	03/30/09 18:07 / jjb
Surr: Tetrachloro-m-xylene	80.0	%REC		40-120		SW8082	03/30/09 18:07 / jjb

Report Definitions:
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QCL - Quality control limit.
MCL - Maximum contaminant level.
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LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-003
Client Sample ID: BSB-GW-03

BSB-A5

Report Date: 04/09/09
Collection Date: 03/24/09 15:10
DateReceived: 03/26/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.0	s.u.		0.1		A4500 H	03/26/09 15:22 / kh
Conductivity	1180	umhos/cm		1		A2510 B	03/26/09 15:20 / kh
INORGANICS							
Chloride	24	mg/L		1		E300.0	04/02/09 20:51 / mlb
Sulfate	538	mg/L		1		E300.0	04/02/09 20:51 / mlb
Cyanide, Total	ND	mg/L		0.005		Kelada mod	03/26/09 15:22 / kjp
Sulfide	ND	mg/L		1		A4500-S E	03/27/09 08:00 / afb
AGGREGATE ORGANICS							
Oxygen Demand, Chemical (COD)	11	mg/L		1		E410.4	03/31/09 16:00 / bls
NUTRIENTS							
Nitrogen, Nitrate+Nitrite as N	1.63	mg/L		0.05		E353.2	03/27/09 14:53 / bls
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	04/01/09 15:36 / lem
Acetonitrile	ND	ug/L		20		SW8260B	04/01/09 15:36 / lem
Acrolein	ND	ug/L		20		SW8260B	04/01/09 15:36 / lem
Acrylonitrile	ND	ug/L		20		SW8260B	04/01/09 15:36 / lem
Allyl chloride	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Benzene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Bromochloromethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Bromodichloromethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Bromoform	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Bromomethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Carbon disulfide	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Chlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Chloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Chloroform	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Chloromethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Chloroprene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Dibromomethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,3-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,4-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem

Report Definitions:
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QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-003
Client Sample ID: BSB-GW-03

Report Date: 04/09/09
Collection Date: 03/24/09 15:10
DateReceived: 03/26/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
1,1-Dichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
cis-1,2-Dichloroethene	0.68	ug/L	J	1.0		SW8260B	04/01/09 15:36 / lem
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,2-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,3-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
2,2-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,1-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Ethylbenzene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Ethyl methacrylate	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Hexachlorobutadiene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
2-Hexanone	ND	ug/L		20		SW8260B	04/01/09 15:36 / lem
Iodomethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Isobutanol	ND	ug/L		50		SW8260B	04/01/09 15:36 / lem
Methacrylonitrile	ND	ug/L		20		SW8260B	04/01/09 15:36 / lem
Methyl ethyl ketone	ND	ug/L		20		SW8260B	04/01/09 15:36 / lem
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	04/01/09 15:36 / lem
Methyl methacrylate	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Methylene chloride	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Naphthalene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Pentachloroethane	ND	ug/L		2.0		SW8260B	04/01/09 15:36 / lem
Propionitrile	ND	ug/L		20		SW8260B	04/01/09 15:36 / lem
Styrene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Tetrachloroethene	0.44	ug/L	J	1.0		SW8260B	04/01/09 15:36 / lem
Toluene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,2,4-Trichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,1,1-Trichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Trichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Vinyl acetate	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Vinyl chloride	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
m+p-Xylenes	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
o-Xylene	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Xylenes, Total	ND	ug/L		1.0		SW8260B	04/01/09 15:36 / lem
Surr: 1,2-Dichloroethane-d4	95.0	%REC		70-130		SW8260B	04/01/09 15:36 / lem
Surr: Dibromofluoromethane	98.0	%REC		77-126		SW8260B	04/01/09 15:36 / lem

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MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. * 1120 S 27th St * PO Box 30916 * Billings, MT 59107-0916
Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/24/09 15:10
Lab ID:	B09031882-003	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-03	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: p-Bromofluorobenzene	96.0	%REC		76-127		SW8260B	04/01/09 15:36 / lem
Surr: Toluene-d8	100	%REC		79-122		SW8260B	04/01/09 15:36 / lem
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4,5-Tetrachlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
1,2,4-Trichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
1,2-Dichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
1,3,5-Trinitrobenzene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
1,3-Dichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
1,3-Dinitrobenzene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
1,4-Benzenediamine	ND	ug/L	P			SW8270C	03/31/09 02:06 / smm
1,4-Dichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
1,4-Naphthoquinone	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
1-Methylnaphthalene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
1-Naphthylamine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2,3,4,6-Tetrachlorophenol	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2,4,5-Trichlorophenol	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2,4,6-Trichlorophenol	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2,4-Dichlorophenol	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2,4-Dimethylphenol	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2,4-Dinitrophenol	ND	ug/L		50		SW8270C	03/31/09 02:06 / smm
2,4-Dinitrotoluene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2,6-Dichlorophenol	ND	ug/L		10		SW8270C	04/01/09 20:30 / dsm
2,6-Dinitrotoluene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2-Acetylaminofluorene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2-Chloronaphthalene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2-Chlorophenol	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2-Methylnaphthalene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2-Naphthylamine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2-Nitroaniline	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2-Nitrophenol	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
2-Picoline	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
3,3´-Dichlorobenzidine	ND	ug/L		20		SW8270C	03/31/09 02:06 / smm
3,3´-Dimethylbenzidine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
3-Methylcholanthrene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
3-Nitroaniline	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
4,6-Dinitro-2-methylphenol	ND	ug/L		50		SW8270C	03/31/09 02:06 / smm
4-Aminobiphenyl	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
4-Bromophenyl phenyl ether	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
4-Chloro-2-methylphenol	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
4-Chloro-3-methylphenol	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
4-Chlorophenol	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
4-Chlorophenyl phenyl ether	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm

Report Definitions:

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LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/24/09 15:10
Lab ID:	B09031882-003	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-03	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
4-Nitroaniline	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
4-Nitrophenol	ND	ug/L		50		SW8270C	03/31/09 02:06 / smm
4-Nitroquinoline-n-oxide	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
5-Nitro-o-toluidine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
7,12-Dimethylbenz(a)anthracene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
a,a-Dimethylphenethylamine	ND	ug/L	P			SW8270C	03/31/09 02:06 / smm
Acenaphthene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Acenaphthylene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Acetophenone	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Aniline	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Anthracene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Aramite	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Azobenzene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Benzidine	ND	ug/L		20		SW8270C	03/31/09 02:06 / smm
Benzo(a)anthracene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Benzo(a)pyrene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Benzo(b)fluoranthene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Benzo(g,h,i)perylene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Benzo(k)fluoranthene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Benzyl alcohol	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
bis(-2-chloroethoxy)Methane	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
bis(-2-chloroethyl)Ether	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
bis(2-chloroisopropyl)Ether	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
bis(2-ethylhexyl)Phthalate	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Butylbenzylphthalate	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Chlorobenzilate	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Chrysene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Diallate	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Dibenzo(a,h)anthracene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Dibenzofuran	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Diethyl phthalate	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Dimethoate	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Dimethyl phthalate	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Di-n-butyl phthalate	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Di-n-octyl phthalate	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Diphenylamine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Disulfoton	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Ethyl methanesulfonate	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Famphur	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Fluoranthene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Fluorene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Hexachlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Hexachlorobutadiene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm

Report Definitions:

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MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-003
Client Sample ID: BSB-GW-03

Report Date: 04/09/09
Collection Date: 03/24/09 15:10
DateReceived: 03/26/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
Hexachlorocyclopentadiene	ND	ug/L		20		SW8270C	03/31/09 02:06 / smm
Hexachloroethane	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Hexachlorophene	ND	ug/L	P			SW8270C	03/31/09 02:06 / smm
Hexachloropropene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Indeno(1,2,3-cd)pyrene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Isophorone	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Isosafrole	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
m+p-Cresols	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Methapyrilene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Methyl methanesulfonate	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Methyl parathion	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Naphthalene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Nitrobenzene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
n-Nitrosodiethylamine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
n-Nitrosodimethylamine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
n-Nitroso-di-n-butylamine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
n-Nitroso-di-n-propylamine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
n-Nitrosodiphenylamine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
n-Nitrosomethylethylamine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
n-Nitrosomorpholine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
n-Nitrosopiperidine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
n-Nitrosopyrrolidine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
o,o,o-Triethyl phosphorothioate	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
o-Cresol	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
o-Toluidine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
p-(dimethylamino)Azobenzene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Parathion	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
p-Chloroaniline	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Pentachlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Pentachloronitrobenzene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Pentachlorophenol	ND	ug/L		50		SW8270C	03/31/09 02:06 / smm
Phenacetin	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Phenanthrene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Phenol	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Phorate	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Pronamide	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Pyrene	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Pyridine	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Safrole	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Sulfotep	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Thionazin	ND	ug/L		10		SW8270C	03/31/09 02:06 / smm
Surr: 2,4,6-Tribromophenol	40.0	%REC		21-130		SW8270C	03/31/09 02:06 / smm
Surr: 2-Fluorobiphenyl	44.0	%REC		28-107		SW8270C	03/31/09 02:06 / smm

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MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/24/09 15:10
Lab ID:	B09031882-003	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-03	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
Surr: 2-Fluorophenol	33.0	%REC		20-56		SW8270C	03/31/09 02:06 / smm
Surr: Nitrobenzene-d5	42.0	%REC		32-94		SW8270C	03/31/09 02:06 / smm
Surr: Phenol-d5	26.0	%REC		19-45		SW8270C	03/31/09 02:06 / smm
Surr: Terphenyl-d14	46.0	%REC		32-122		SW8270C	03/31/09 02:06 / smm
8081A-ORGANOCHLORINE PESTICIDES							
4,4´-DDD	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
4,4´-DDE	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
4,4´-DDT	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Aldrin	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
alpha-BHC	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
alpha-Chlordane	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
beta-BHC	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Chlordane	ND	ug/L		0.50		SW8081A	03/30/09 18:35 / jjb
delta-BHC	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Dieldrin	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Endosulfan I	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Endosulfan II	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Endosulfan sulfate	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Endrin	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Endrin aldehyde	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Endrin ketone	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
gamma-BHC (Lindane)	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
gamma-Chlordane	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Heptachlor	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Heptachlor epoxide	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Isodrin	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Kepone	ND	ug/L		0.10		SW8081A	03/30/09 18:35 / jjb
Methoxychlor	ND	ug/L		0.050		SW8081A	03/30/09 18:35 / jjb
Toxaphene	ND	ug/L		5.0		SW8081A	03/30/09 18:35 / jjb
Surr: Decachlorobiphenyl	87.0	%REC		44-119		SW8081A	03/30/09 18:35 / jjb
Surr: Tetrachloro-m-xylene	83.0	%REC		40-120		SW8081A	03/30/09 18:35 / jjb
HERBICIDES, CHLORINATED							
2,4-D	ND	ug/L		1.0		SW8151A	04/01/09 09:48 / ldw
Dinoseb	ND	ug/L		1.0		SW8151A	04/01/09 09:48 / ldw
2,4,5-T	ND	ug/L		0.20		SW8151A	04/01/09 09:48 / ldw
2,4,5-TP (Silvex)	ND	ug/L		0.20		SW8151A	04/01/09 09:48 / ldw
Surr: DCAA	112	%REC		57-125		SW8151A	04/01/09 09:48 / ldw
POLYCHLORINATED BIPHENYLS (PCBS)							
Aroclor 1016	ND	ug/L		0.50		SW8082	03/30/09 18:35 / jjb

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/24/09 15:10
Lab ID:	B09031882-003	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-03	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
POLYCHLORINATED BIPHENYLS (PCBS)							
Aroclor 1221	ND	ug/L		0.50		SW8082	03/30/09 18:35 / jjb
Aroclor 1232	ND	ug/L		0.50		SW8082	03/30/09 18:35 / jjb
Aroclor 1242	ND	ug/L		0.50		SW8082	03/30/09 18:35 / jjb
Aroclor 1248	ND	ug/L		0.50		SW8082	03/30/09 18:35 / jjb
Aroclor 1254	ND	ug/L		0.50		SW8082	03/30/09 18:35 / jjb
Aroclor 1260	ND	ug/L		0.50		SW8082	03/30/09 18:35 / jjb
Aroclor 1262	ND	ug/L		0.50		SW8082	03/30/09 18:35 / jjb
Aroclor 1268	ND	ug/L		0.50		SW8082	03/30/09 18:35 / jjb
Surr: Decachlorobiphenyl	87.0	%REC		44-119		SW8082	03/30/09 18:35 / jjb
Surr: Tetrachloro-m-xylene	83.0	%REC		40-120		SW8082	03/30/09 18:35 / jjb

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/25/09 11:40
Lab ID:	B09031882-004	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-04 BSB-A6-R	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.1	s.u.		0.1		A4500 H	03/26/09 15:23 / kh
Conductivity	2780	umhos/cm		1		A2510 B	03/26/09 15:21 / kh
INORGANICS							
Chloride	51	mg/L		1		E300.0	04/02/09 21:02 / mlb
Sulfate	1640	mg/L		1		E300.0	04/02/09 21:02 / mlb
Cyanide, Total	0.039	mg/L		0.005		Kelada mod	04/02/09 09:27 / clr
Sulfide	ND	mg/L		1		A4500-S E	03/27/09 08:00 / afb
- If present, Sulfide would not have been detected, due to interference from an oxidizing agent in the sample.							
AGGREGATE ORGANICS							
Oxygen Demand, Chemical (COD)	282	mg/L	D	2		E410.4	04/02/09 10:00 / bls
NUTRIENTS							
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	03/27/09 14:54 / bls
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	04/01/09 16:05 / lem
Acetonitrile	ND	ug/L		20		SW8260B	04/01/09 16:05 / lem
Acrolein	ND	ug/L		20		SW8260B	04/01/09 16:05 / lem
Acrylonitrile	ND	ug/L		20		SW8260B	04/01/09 16:05 / lem
Allyl chloride	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Benzene	0.64	ug/L	J	1.0		SW8260B	04/01/09 16:05 / lem
Bromochloromethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Bromodichloromethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Bromoform	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Bromomethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Carbon disulfide	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Chlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Chloroethane	0.51	ug/L	J	1.0		SW8260B	04/01/09 16:05 / lem
Chloroform	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Chloromethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Chloroprene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Dibromomethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,3-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,4-Dichlorobenzene	2.8	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Dichlorodifluoromethane	2.0	ug/L		1.0		SW8260B	04/01/09 16:05 / lem

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.
	D - RL increased due to sample matrix interference.	J - Estimated value. The analyte was present but less than t reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/25/09 11:40
Lab ID:	B09031882-004	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-04	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
1,1-Dichloroethane	1.5	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
cis-1,2-Dichloroethene	8.2	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,2-Dichloropropane	0.48	ug/L	J	1.0		SW8260B	04/01/09 16:05 / lem
1,3-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
2,2-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,1-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Ethylbenzene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Ethyl methacrylate	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Hexachlorobutadiene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
2-Hexanone	ND	ug/L		20		SW8260B	04/01/09 16:05 / lem
Iodomethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Isobutanol	ND	ug/L		50		SW8260B	04/01/09 16:05 / lem
Methacrylonitrile	ND	ug/L		20		SW8260B	04/01/09 16:05 / lem
Methyl ethyl ketone	ND	ug/L		20		SW8260B	04/01/09 16:05 / lem
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	04/01/09 16:05 / lem
Methyl methacrylate	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Methylene chloride	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Naphthalene	0.72	ug/L	J	1.0		SW8260B	04/01/09 16:05 / lem
Pentachloroethane	ND	ug/L		2.0		SW8260B	04/01/09 16:05 / lem
Propionitrile	ND	ug/L		20		SW8260B	04/01/09 16:05 / lem
Styrene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Tetrachloroethene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Toluene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,2,4-Trichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,1,1-Trichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Trichloroethene	0.64	ug/L	J	1.0		SW8260B	04/01/09 16:05 / lem
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Vinyl acetate	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Vinyl chloride	6.9	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
m+p-Xylenes	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
o-Xylene	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Xylenes, Total	ND	ug/L		1.0		SW8260B	04/01/09 16:05 / lem
Surr: 1,2-Dichloroethane-d4	90.0	%REC		70-130		SW8260B	04/01/09 16:05 / lem
Surr: Dibromofluoromethane	97.0	%REC		77-126		SW8260B	04/01/09 16:05 / lem

Report Definitions:

RL - Analyte reporting limit.

QCL - Quality control limit.

J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/25/09 11:40
Lab ID:	B09031882-004	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-04	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: p-Bromofluorobenzene	97.0	%REC		76-127		SW8260B	04/01/09 16:05 / lem
Surr: Toluene-d8	101	%REC		79-122		SW8260B	04/01/09 16:05 / lem
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4,5-Tetrachlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
1,2,4-Trichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
1,2-Dichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
1,3,5-Trinitrobenzene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
1,3-Dichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
1,3-Dinitrobenzene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
1,4-Benzenediamine	ND	ug/L	P			SW8270C	03/31/09 02:36 / smm
1,4-Dichlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
1,4-Naphthoquinone	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
1-Methylnaphthalene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
1-Naphthylamine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2,3,4,6-Tetrachlorophenol	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2,4,5-Trichlorophenol	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2,4,6-Trichlorophenol	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2,4-Dichlorophenol	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2,4-Dimethylphenol	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2,4-Dinitrophenol	ND	ug/L		50		SW8270C	03/31/09 02:36 / smm
2,4-Dinitrotoluene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2,6-Dichlorophenol	ND	ug/L		10		SW8270C	04/01/09 21:01 / dsm
2,6-Dinitrotoluene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2-Acetylaminofluorene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2-Chloronaphthalene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2-Chlorophenol	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2-Methylnaphthalene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2-Naphthylamine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2-Nitroaniline	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2-Nitrophenol	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
2-Picoline	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
3,3´-Dichlorobenzidine	ND	ug/L		20		SW8270C	03/31/09 02:36 / smm
3,3´-Dimethylbenzidine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
3-Methylcholanthrene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
3-Nitroaniline	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
4,6-Dinitro-2-methylphenol	ND	ug/L		50		SW8270C	03/31/09 02:36 / smm
4-Aminobiphenyl	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
4-Bromophenyl phenyl ether	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
4-Chloro-2-methylphenol	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
4-Chloro-3-methylphenol	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
4-Chlorophenol	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
4-Chlorophenyl phenyl ether	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm

Report Definitions:

RL - Analyte reporting limit.

QCL - Quality control limit.

P - Poor method performance. Method validations have shown no recoveries at low levels or erratic method performance.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-004
Client Sample ID: BSB-GW-04

Report Date: 04/09/09
Collection Date: 03/25/09 11:40
DateReceived: 03/26/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
4-Nitroaniline	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
4-Nitrophenol	ND	ug/L		50		SW8270C	03/31/09 02:36 / smm
4-Nitroquinoline-n-oxide	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
5-Nitro-o-toluidine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
7,12-Dimethylbenz(a)anthracene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
a,a-Dimethylphenethylamine	ND	ug/L	P			SW8270C	03/31/09 02:36 / smm
Acenaphthene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Acenaphthylene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Acetophenone	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Aniline	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Anthracene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Aramite	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Azobenzene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Benzidine	ND	ug/L		20		SW8270C	03/31/09 02:36 / smm
Benzo(a)anthracene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Benzo(a)pyrene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Benzo(b)fluoranthene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Benzo(g,h,i)perylene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Benzo(k)fluoranthene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Benzyl alcohol	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
bis(-2-chloroethoxy)Methane	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
bis(-2-chloroethyl)Ether	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
bis(2-chloroisopropyl)Ether	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
bis(2-ethylhexyl)Phthalate	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Butylbenzylphthalate	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Chlorobenzilate	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Chrysene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Diallate	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Dibenzo(a,h)anthracene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Dibenzofuran	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Diethyl phthalate	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Dimethoate	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Dimethyl phthalate	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Di-n-butyl phthalate	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Di-n-octyl phthalate	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Diphenylamine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Disulfoton	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Ethyl methanesulfonate	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Famphur	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Fluoranthene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Fluorene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Hexachlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Hexachlorobutadiene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
P - Poor method performance. Method validations have shown no recoveries at low levels or erratic method performance.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/25/09 11:40
Lab ID:	B09031882-004	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-04	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
Hexachlorocyclopentadiene	ND	ug/L		20		SW8270C	03/31/09 02:36 / smm
Hexachloroethane	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Hexachlorophene	ND	ug/L	P			SW8270C	03/31/09 02:36 / smm
Hexachloropropene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Indeno(1,2,3-cd)pyrene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Isophorone	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Isosafrole	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
m+p-Cresols	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Methapyrilene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Methyl methanesulfonate	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Methyl parathion	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Naphthalene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Nitrobenzene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
n-Nitrosodiethylamine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
n-Nitrosodimethylamine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
n-Nitroso-di-n-butylamine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
n-Nitroso-di-n-propylamine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
n-Nitrosodiphenylamine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
n-Nitrosomethylethylamine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
n-Nitrosomorpholine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
n-Nitrosopiperidine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
n-Nitrosopyrrolidine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
o,o,o-Triethyl phosphorothioate	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
o-Cresol	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
o-Toluidine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
p-(dimethylamino)Azobenzene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Parathion	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
p-Chloroaniline	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Pentachlorobenzene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Pentachloronitrobenzene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Pentachlorophenol	ND	ug/L		50		SW8270C	03/31/09 02:36 / smm
Phenacetin	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Phenanthrene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Phenol	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Phorate	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Pronamide	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Pyrene	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Pyridine	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Safrole	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Sulfotep	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Thionazin	ND	ug/L		10		SW8270C	03/31/09 02:36 / smm
Surr: 2,4,6-Tribromophenol	44.0	%REC		21-130		SW8270C	03/31/09 02:36 / smm
Surr: 2-Fluorobiphenyl	41.0	%REC		28-107		SW8270C	03/31/09 02:36 / smm

Report Definitions:

RL - Analyte reporting limit.

QCL - Quality control limit.

P - Poor method performance. Method validations have shown no recoveries at low levels or erratic method performance.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. * 1120 S 27th St * PO Box 30916 * Billings, MT 59107-0916
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LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/25/09 11:40
Lab ID:	B09031882-004	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-04	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUNDS							
Surr: 2-Fluorophenol	35.0	%REC		20-56		SW8270C	03/31/09 02:36 / smm
Surr: Nitrobenzene-d5	42.0	%REC		32-94		SW8270C	03/31/09 02:36 / smm
Surr: Phenol-d5	30.0	%REC		19-45		SW8270C	03/31/09 02:36 / smm
Surr: Terphenyl-d14	32.0	%REC		32-122		SW8270C	03/31/09 02:36 / smm
8081A-ORGANOCHLORINE PESTICIDES							
4,4´-DDD	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
4,4´-DDE	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
4,4´-DDT	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Aldrin	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
alpha-BHC	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
alpha-Chlordane	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
beta-BHC	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Chlordane	ND	ug/L		0.50		SW8081A	03/30/09 19:03 / jjb
delta-BHC	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Dieldrin	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Endosulfan I	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Endosulfan II	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Endosulfan sulfate	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Endrin	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Endrin aldehyde	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Endrin ketone	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
gamma-BHC (Lindane)	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
gamma-Chlordane	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Heptachlor	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Heptachlor epoxide	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Isodrin	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Kepone	ND	ug/L		0.10		SW8081A	03/30/09 19:03 / jjb
Methoxychlor	ND	ug/L		0.050		SW8081A	03/30/09 19:03 / jjb
Toxaphene	ND	ug/L		5.0		SW8081A	03/30/09 19:03 / jjb
Surr: Decachlorobiphenyl	16.0	%REC	S	44-119		SW8081A	03/30/09 19:03 / jjb
Surr: Tetrachloro-m-xylene	64.0	%REC		40-120		SW8081A	03/30/09 19:03 / jjb
-The low percent recovery of Decachlorobiphenyl is due to sediment in the sample.							
HERBICIDES, CHLORINATED							
2,4-D	ND	ug/L		1.0		SW8151A	04/01/09 10:21 / ldw
Dinoseb	ND	ug/L		1.0		SW8151A	04/01/09 10:21 / ldw
2,4,5-T	ND	ug/L		0.20		SW8151A	04/01/09 10:21 / ldw
2,4,5-TP (Silvex)	ND	ug/L	D	0.26		SW8151A	04/01/09 10:21 / ldw
Surr: DCAA	97.0	%REC		57-125		SW8151A	04/01/09 10:21 / ldw
POLYCHLORINATED BIPHENYLS (PCBS)							
Aroclor 1016	ND	ug/L		0.50		SW8082	03/30/09 19:03 / jjb

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

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LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/25/09 11:40
Lab ID:	B09031882-004	**DateReceived:**	03/26/09
Client Sample ID:	BSB-GW-04	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
POLYCHLORINATED BIPHENYLS (PCBS)							
Aroclor 1221	ND	ug/L		0.50		SW8082	03/30/09 19:03 / jjb
Aroclor 1232	ND	ug/L		0.50		SW8082	03/30/09 19:03 / jjb
Aroclor 1242	ND	ug/L		0.50		SW8082	03/30/09 19:03 / jjb
Aroclor 1248	ND	ug/L		0.50		SW8082	03/30/09 19:03 / jjb
Aroclor 1254	ND	ug/L		0.50		SW8082	03/30/09 19:03 / jjb
Aroclor 1260	ND	ug/L		0.50		SW8082	03/30/09 19:03 / jjb
Aroclor 1262	ND	ug/L		0.50		SW8082	03/30/09 19:03 / jjb
Aroclor 1268	ND	ug/L		0.50		SW8082	03/30/09 19:03 / jjb
Surr: Decachlorobiphenyl	16.0	%REC	S	44-119		SW8082	03/30/09 19:03 / jjb
Surr: Tetrachloro-m-xylene	64.0	%REC		40-120		SW8082	03/30/09 19:03 / jjb

-The low percent recovery of Decachlorobiphenyl is due to sediment in the sample.

Report Definitions:

RL - Analyte reporting limit.

QCL - Quality control limit.

S - Spike recovery outside of advisory limits.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-005
Client Sample ID: BSB-GW-07

BSB-A6-R Dup

Report Date: 04/09/09
Collection Date: 03/25/09 12:00
DateReceived: 03/26/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	04/01/09 16:36 / lem
Acetonitrile	ND	ug/L		20		SW8260B	04/01/09 16:36 / lem
Acrolein	ND	ug/L		20		SW8260B	04/01/09 16:36 / lem
Acrylonitrile	ND	ug/L		20		SW8260B	04/01/09 16:36 / lem
Allyl chloride	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Benzene	0.62	ug/L	J	1.0		SW8260B	04/01/09 16:36 / lem
Bromochloromethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Bromodichloromethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Bromoform	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Bromomethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Carbon disulfide	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Chlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Chloroethane	0.50	ug/L	J	1.0		SW8260B	04/01/09 16:36 / lem
Chloroform	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Chloromethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Chloroprene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Dibromomethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,3-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,4-Dichlorobenzene	2.8	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Dichlorodifluoromethane	2.0	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,1-Dichloroethane	1.4	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
cis-1,2-Dichloroethene	8.1	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,2-Dichloropropane	0.52	ug/L	J	1.0		SW8260B	04/01/09 16:36 / lem
1,3-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
2,2-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,1-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Ethylbenzene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Ethyl methacrylate	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Hexachlorobutadiene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
2-Hexanone	ND	ug/L		20		SW8260B	04/01/09 16:36 / lem
Iodomethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Isobutanol	ND	ug/L		50		SW8260B	04/01/09 16:36 / lem

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
J - Estimated value. The analyte was present but less than the reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-005
Client Sample ID: BSB-GW-07

Report Date: 04/09/09
Collection Date: 03/25/09 12:00
DateReceived: 03/26/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methacrylonitrile	ND	ug/L		20		SW8260B	04/01/09 16:36 / lem
Methyl ethyl ketone	ND	ug/L		20		SW8260B	04/01/09 16:36 / lem
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	04/01/09 16:36 / lem
Methyl methacrylate	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Methylene chloride	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Naphthalene	0.92	ug/L	J	1.0		SW8260B	04/01/09 16:36 / lem
Pentachloroethane	ND	ug/L		2.0		SW8260B	04/01/09 16:36 / lem
Propionitrile	ND	ug/L		20		SW8260B	04/01/09 16:36 / lem
Styrene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Tetrachloroethene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Toluene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,2,4-Trichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,1,1-Trichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Trichloroethene	0.56	ug/L	J	1.0		SW8260B	04/01/09 16:36 / lem
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Vinyl acetate	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Vinyl chloride	6.8	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
m+p-Xylenes	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
o-Xylene	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Xylenes, Total	ND	ug/L		1.0		SW8260B	04/01/09 16:36 / lem
Surr: 1,2-Dichloroethane-d4	94.0	%REC		70-130		SW8260B	04/01/09 16:36 / lem
Surr: Dibromofluoromethane	97.0	%REC		77-126		SW8260B	04/01/09 16:36 / lem
Surr: p-Bromofluorobenzene	94.0	%REC		76-127		SW8260B	04/01/09 16:36 / lem
Surr: Toluene-d8	98.0	%REC		79-122		SW8260B	04/01/09 16:36 / lem

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
J - Estimated value. The analyte was present but less than the reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill
Lab ID: B09031882-006
Client Sample ID: Trip Blank Lot #031009, B-JSS SHPO241

Report Date: 04/09/09
Collection Date: 03/24/09 12:20
DateReceived: 03/26/09
Matrix: Trip Blank

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	04/01/09 14:11 / lem
Acetonitrile	ND	ug/L		20		SW8260B	04/01/09 14:11 / lem
Acrolein	ND	ug/L		20		SW8260B	04/01/09 14:11 / lem
Acrylonitrile	ND	ug/L		20		SW8260B	04/01/09 14:11 / lem
Allyl chloride	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Benzene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Bromochloromethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Bromodichloromethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Bromoform	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Bromomethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Carbon disulfide	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Chlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Chloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Chloroform	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Chloromethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Chloroprene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Dibromomethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,3-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,4-Dichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,1-Dichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
cis-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,2-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,3-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
2,2-Dichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,1-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Ethylbenzene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Ethyl methacrylate	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Hexachlorobutadiene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
2-Hexanone	ND	ug/L		20		SW8260B	04/01/09 14:11 / lem
Iodomethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Isobutanol	ND	ug/L		50		SW8260B	04/01/09 14:11 / lem

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Butte Silver Bow Public Works Dept	**Report Date:**	04/09/09
Project:	Old Landfill	**Collection Date:**	03/24/09 12:20
Lab ID:	B09031882-006	**DateReceived:**	03/26/09
Client Sample ID:	Trip Blank Lot #031009, B-JSS SHPO241	**Matrix:**	Trip Blank

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Methacrylonitrile	ND	ug/L		20		SW8260B	04/01/09 14:11 / lem
Methyl ethyl ketone	ND	ug/L		20		SW8260B	04/01/09 14:11 / lem
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	04/01/09 14:11 / lem
Methyl methacrylate	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Methylene chloride	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Naphthalene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Pentachloroethane	ND	ug/L		2.0		SW8260B	04/01/09 14:11 / lem
Propionitrile	ND	ug/L		20		SW8260B	04/01/09 14:11 / lem
Styrene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Tetrachloroethene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Toluene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,2,4-Trichlorobenzene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,1,1-Trichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Trichloroethene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Vinyl acetate	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Vinyl chloride	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
m+p-Xylenes	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
o-Xylene	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Xylenes, Total	ND	ug/L		1.0		SW8260B	04/01/09 14:11 / lem
Surr: 1,2-Dichloroethane-d4	92.0	%REC		70-130		SW8260B	04/01/09 14:11 / lem
Surr: Dibromofluoromethane	97.0	%REC		77-126		SW8260B	04/01/09 14:11 / lem
Surr: p-Bromofluorobenzene	97.0	%REC		76-127		SW8260B	04/01/09 14:11 / lem
Surr: Toluene-d8	88.0	%REC		79-122		SW8260B	04/01/09 14:11 / lem

Report Definitions:	RL - Analyte reporting limit. QCL - Quality control limit.	MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/08/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B									Batch: PHSC090326A
Sample ID: PHC1081231G	Laboratory Control Sample				Run: ORION555A_090326A				03/26/09 08:56
Conductivity	152	umhos/cm	1.0	101	90	110			
Sample ID: PHC1090310A	Laboratory Control Sample				Run: ORION555A_090326A				03/26/09 08:57
Conductivity	5020	umhos/cm	1.0	100	90	110			
Sample ID: PHC1081114A	Laboratory Control Sample				Run: ORION555A_090326A				03/26/09 08:57
Conductivity	20100	umhos/cm	1.0	101	90	110			
Sample ID: B09031882-001ADUP	Sample Duplicate				Run: ORION555A_090326A				03/26/09 15:18
Conductivity	749	umhos/cm	1.0				0.8	10	
Method: A4500 H									Batch: PHSC090326A
Sample ID: PHC1081231F	Laboratory Control Sample				Run: ORION555A_090326A				03/26/09 08:58
pH	4.00	s.u.	0.10	100	97	103			
Sample ID: PHC1080722E	Laboratory Control Sample				Run: ORION555A_090326A				03/26/09 08:59
pH	6.97	s.u.	0.10	100	98	102			
Sample ID: B09031882-001ADUP	Sample Duplicate				Run: ORION555A_090326A				03/26/09 15:19
pH	7.16	s.u.	0.10				0.1	10	
Method: A4500-S E									Batch: 090327A-SULFIDE-TTR-W
Sample ID: B09031783-006BMS	Sample Matrix Spike				Run: MISC-WC_090327F				03/27/09 08:00
Sulfide	198	mg/L	1.0	98	80	120			
Sample ID: B09031783-006BMSD	Sample Matrix Spike Duplicate				Run: MISC-WC_090327F				03/27/09 08:00
Sulfide	196	mg/L	1.0	96	80	120	1	20	
Sample ID: MBLK1_090327A	Method Blank				Run: MISC-WC_090327F				03/27/09 08:00
Sulfide	ND	mg/L	0.5						
Sample ID: LFB1_090327A	Laboratory Fortified Blank				Run: MISC-WC_090327F				03/27/09 08:00
Sulfide	20.0	mg/L	1.0	100	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/08/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7						Analytical Run: ICP201-B_090327A			
Sample ID: ICV	Continuing Calibration Verification Standard							03/27/09 10:50	
Beryllium	1.24	mg/L	0.010	99	95	105			
Iron	2.51	mg/L	0.030	100	95	105			
Method: E200.7								Batch: R126886	
Sample ID: MB-TJADIS090327A	Method Blank				Run: ICP201-B_090327A			03/27/09 11:16	
Beryllium	ND	mg/L	0.0002						
Iron	ND	mg/L	0.004						
Sample ID: LFB-TJADIS090327A	Laboratory Fortified Blank				Run: ICP201-B_090327A			03/27/09 11:20	
Beryllium	0.506	mg/L	0.010	101	85	115			
Iron	5.00	mg/L	0.030	100	85	115			
Sample ID: B09031882-001BMS2	Sample Matrix Spike				Run: ICP201-B_090327A			03/28/09 01:10	
Beryllium	0.485	mg/L	0.0010	97	70	130			
Iron	4.80	mg/L	0.030	96	70	130			
Sample ID: B09031882-001BMSD2	Sample Matrix Spike Duplicate				Run: ICP201-B_090327A			03/28/09 01:14	
Beryllium	0.499	mg/L	0.0010	100	70	130	3	20	
Iron	4.85	mg/L	0.030	97	70	130	1	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/08/09
Work Order: B09031882

Method: E200.8 — Analytical Run: ICPMS202-B_090327A

Sample ID: QCS - 081021A,081125A, Initial Calibration Verification Standard — 03/28/09 00:44

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Antimony	0.0509	mg/L	0.050	102	90	110			
Arsenic	0.0488	mg/L	0.0050	98	90	110			
Barium	0.0490	mg/L	0.10	98	90	110			
Cadmium	0.0243	mg/L	0.0010	97	90	110			
Chromium	0.0479	mg/L	0.010	96	90	110			
Cobalt	0.0478	mg/L	0.010	96	90	110			
Copper	0.0476	mg/L	0.010	95	90	110			
Lead	0.0494	mg/L	0.010	99	90	110			
Nickel	0.0481	mg/L	0.010	96	90	110			
Selenium	0.0497	mg/L	0.0050	99	90	110			
Silver	0.0245	mg/L	0.0050	98	90	110			
Thallium	0.0503	mg/L	0.10	101	90	110			
Vanadium	0.0493	mg/L	0.10	99	90	110			
Zinc	0.0489	mg/L	0.010	98	90	110			

Method: E200.8 — Batch: R126839

Sample ID: LRB — Method Blank — Run: ICPMS202-B_090327A — 03/27/09 13:43

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Antimony	ND	mg/L	1E-05						
Arsenic	ND	mg/L	4E-05						
Barium	ND	mg/L	3E-05						
Cadmium	1E-05	mg/L	9E-06						
Chromium	ND	mg/L	4E-05						
Cobalt	ND	mg/L	1E-05						
Copper	ND	mg/L	7E-05						
Lead	ND	mg/L	8E-06						
Nickel	ND	mg/L	3E-05						
Selenium	ND	mg/L	0.0001						
Silver	ND	mg/L	3E-05						
Thallium	ND	mg/L	7E-06						
Vanadium	ND	mg/L	3E-05						
Zinc	0.0008	mg/L	3E-05						

Sample ID: LFB — Laboratory Fortified Blank — Run: ICPMS202-B_090327A — 03/27/09 13:50

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Antimony	0.0491	mg/L	0.050	98	85	115			
Arsenic	0.0490	mg/L	0.0050	98	85	115			
Barium	0.0514	mg/L	0.10	103	85	115			
Cadmium	0.0492	mg/L	0.0010	98	85	115			
Chromium	0.0486	mg/L	0.010	97	85	115			
Cobalt	0.0485	mg/L	0.010	97	85	115			
Copper	0.0484	mg/L	0.010	97	85	115			
Lead	0.0491	mg/L	0.010	98	85	115			
Nickel	0.0487	mg/L	0.010	97	85	115			
Selenium	0.0491	mg/L	0.0050	98	85	115			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/08/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Batch: R126839	
Sample ID: LFB	Laboratory Fortified Blank				Run: ICPMS202-B_090327A			03/27/09 13:50	
Silver	0.0179	mg/L	0.0050	90	85	115			
Thallium	0.0494	mg/L	0.10	99	85	115			
Vanadium	0.0495	mg/L	0.10	99	85	115			
Zinc	0.0499	mg/L	0.010	98	85	115			
Sample ID: B09031882-001BMS	Sample Matrix Spike				Run: ICPMS202-B_090327A			03/28/09 07:25	
Antimony	0.0495	mg/L	0.0050	99	70	130			
Arsenic	0.0495	mg/L	0.0050	96	70	130			
Barium	0.162	mg/L	0.10	85	70	130			
Cadmium	0.0468	mg/L	0.0010	94	70	130			
Chromium	0.0467	mg/L	0.010	92	70	130			
Cobalt	0.0441	mg/L	0.010	88	70	130			
Copper	0.0445	mg/L	0.010	87	70	130			
Lead	0.0456	mg/L	0.010	91	70	130			
Nickel	0.0455	mg/L	0.010	86	70	130			
Selenium	0.0481	mg/L	0.0050	94	70	130			
Silver	0.0135	mg/L	0.0050	67	70	130			S
Thallium	0.0461	mg/L	0.0050	92	70	130			
Vanadium	0.0544	mg/L	0.10	94	70	130			
Zinc	0.0477	mg/L	0.010	93	70	130			
Sample ID: B09031882-001BMSD	Sample Matrix Spike Duplicate				Run: ICPMS202-B_090327A			03/28/09 07:33	
Antimony	0.0471	mg/L	0.0050	94	70	130	4.9	20	
Arsenic	0.0469	mg/L	0.0050	91	70	130	5.3	20	
Barium	0.163	mg/L	0.10	88	70	130	0.9	20	
Cadmium	0.0476	mg/L	0.0010	95	70	130	1.8	20	
Chromium	0.0458	mg/L	0.010	91	70	130	1.8	20	
Cobalt	0.0441	mg/L	0.010	88	70	130	0.2	20	
Copper	0.0451	mg/L	0.010	88	70	130	1.2	20	
Lead	0.0471	mg/L	0.010	94	70	130	3.3	20	
Nickel	0.0453	mg/L	0.010	86	70	130	0.4	20	
Selenium	0.0464	mg/L	0.0050	90	70	130	3.7	20	
Silver	0.0143	mg/L	0.0050	71	70	130	5.9	20	
Thallium	0.0477	mg/L	0.0050	95	70	130	3.6	20	
Vanadium	0.0520	mg/L	0.10	89	70	130		20	
Zinc	0.0487	mg/L	0.010	95	70	130	2	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/08/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: IC202-B_090402A
Sample ID: ICV040209-11	Initial Calibration Verification Standard								04/02/09 12:31
Chloride	23.6	mg/L	1.0	94	90	110			
Sulfate	101	mg/L	1.0	101	90	110			
Method: E300.0									Batch: R127179
Sample ID: ICB040209-12	Method Blank				Run: IC202-B_090402A				04/02/09 12:42
Chloride	ND	mg/L	0.03						
Sulfate	ND	mg/L	0.06						
Sample ID: LFB040209-13	Laboratory Fortified Blank				Run: IC202-B_090402A				04/02/09 12:54
Chloride	23.4	mg/L	1.0	94	90	110			
Sulfate	102	mg/L	1.0	102	90	110			
Sample ID: B09031884-001AMS	Sample Matrix Spike				Run: IC202-B_090402A				04/02/09 21:26
Chloride	37.5	mg/L	1.0	107	90	110			
Sulfate	150	mg/L	1.0	111	90	110			S
Sample ID: B09031884-001AMSD	Sample Matrix Spike Duplicate				Run: IC202-B_090402A				04/02/09 21:37
Chloride	38.0	mg/L	1.0	109	90	110	1.2	20	
Sulfate	152	mg/L	1.0	113	90	110	1.1	20	S
Method: E353.2									Analytical Run: FIA203-B_090327A
Sample ID: ICV	Initial Calibration Verification Standard								03/27/09 11:12
Nitrogen, Nitrate+Nitrite as N	36.3	mg/L	0.050	102	90	110			
Method: E353.2									Batch: R126822
Sample ID: MBLK	Method Blank				Run: FIA203-B_090327A				03/27/09 11:13
Nitrogen, Nitrate+Nitrite as N	0.003	mg/L	0.002						
Sample ID: LFB	Laboratory Fortified Blank				Run: FIA203-B_090327A				03/27/09 11:14
Nitrogen, Nitrate+Nitrite as N	1.01	mg/L	0.050	102	90	110			
Sample ID: B09031882-002BMS	Sample Matrix Spike				Run: FIA203-B_090327A				03/27/09 14:51
Nitrogen, Nitrate+Nitrite as N	1.46	mg/L	0.050	102	90	110			
Sample ID: B09031882-002BMSD	Sample Matrix Spike Duplicate				Run: FIA203-B_090327A				03/27/09 14:52
Nitrogen, Nitrate+Nitrite as N	1.47	mg/L	0.050	104	90	110	1.3	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/08/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **E410.4**									Batch: R127095
Sample ID: **MB-R127095**	Method Blank				Run: MISC-WC_090331J				03/31/09 16:00
Oxygen Demand, Chemical (COD)	ND	mg/L	1						
Sample ID: **LCS-R127095**	Laboratory Control Sample				Run: MISC-WC_090331J				03/31/09 16:00
Oxygen Demand, Chemical (COD)	122	mg/L	1.0	105	90	110			
Sample ID: **B09031882-001CMS**	Sample Matrix Spike				Run: MISC-WC_090331J				03/31/09 16:00
Oxygen Demand, Chemical (COD)	31.6	mg/L	1.0	105	90	110			
Sample ID: **B09031882-001CMSD**	Sample Matrix Spike Duplicate				Run: MISC-WC_090331J				03/31/09 16:00
Oxygen Demand, Chemical (COD)	30.8	mg/L	1.0	102	90	110	2.6	10	
Sample ID: **LFB**	Laboratory Fortified Blank				Run: MISC-WC_090331J				03/31/09 16:00
Oxygen Demand, Chemical (COD)	23.8	mg/L	1.0	98	90	110			
Method: **E410.4**									Batch: R127165
Sample ID: **MB-R127165**	Method Blank				Run: MISC-WC_090402G				04/02/09 10:00
Oxygen Demand, Chemical (COD)	ND	mg/L	1						
Sample ID: **LCS-R127165**	Laboratory Control Sample				Run: MISC-WC_090402G				04/02/09 10:00
Oxygen Demand, Chemical (COD)	123	mg/L	1.0	106	90	110			
Sample ID: **B09032106-005CMS**	Sample Matrix Spike				Run: MISC-WC_090402G				04/02/09 10:00
Oxygen Demand, Chemical (COD)	43.0	mg/L	1.0	90	90	110			
Sample ID: **B09032106-005CMSD**	Sample Matrix Spike Duplicate				Run: MISC-WC_090402G				04/02/09 10:00
Oxygen Demand, Chemical (COD)	43.7	mg/L	1.0	93	90	110	1.6	10	
Sample ID: **LFB**	Laboratory Fortified Blank				Run: MISC-WC_090402G				04/02/09 10:00
Oxygen Demand, Chemical (COD)	25.1	mg/L	1.0	103	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/08/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: Kelada mod									Batch: 38001
Sample ID: LCS-38001	Laboratory Control Sample				Run: AUTOAN201-B_090330A				03/30/09 14:43
Cyanide, Total	0.0949	mg/L	0.0050	95	90	110			
Sample ID: B09031952-001DMS	Sample Matrix Spike				Run: AUTOAN201-B_090330A				03/30/09 14:46
Cyanide, Total	0.124	mg/L	0.0050	108	90	110			
Sample ID: B09031952-001DMSD	Sample Matrix Spike Duplicate				Run: AUTOAN201-B_090330A				03/30/09 14:48
Cyanide, Total	0.116	mg/L	0.0050	100	90	110			
Sample ID: B09032015-001CMS	Sample Matrix Spike				Run: AUTOAN201-B_090331B				03/31/09 15:48
Cyanide, Total	0.0933	mg/L	0.0050	88	90	110			S
Sample ID: B09032015-001CMSD	Sample Matrix Spike Duplicate				Run: AUTOAN201-B_090331B				03/31/09 15:50
Cyanide, Total	0.0881	mg/L	0.0050	83	90	110			S
Sample ID: MB-38001	Method Blank				Run: AUTOAN201-B_090402A				04/02/09 09:06
Cyanide, Total	ND	mg/L	0.003						
Sample ID: B09031882-004CMS	Sample Matrix Spike				Run: AUTOAN201-B_090402A				04/02/09 09:29
Cyanide, Total	0.129	mg/L	0.0050	96	90	110			
Sample ID: B09031882-004CMSD	Sample Matrix Spike Duplicate				Run: AUTOAN201-B_090402A				04/02/09 09:30
Cyanide, Total	0.137	mg/L	0.0050	104	90	110			
Method: Kelada mod									Analytical Run: AUTOAN201-B_090326A
Sample ID: ICV-1	Initial Calibration Verification Standard								03/26/09 10:03
Cyanide, Total	0.148	mg/L	0.0050	99	90	110			
Method: Kelada mod									Batch: R126772
Sample ID: LFB-2	Laboratory Fortified Blank				Run: AUTOAN201-B_090326A				03/26/09 10:05
Cyanide, Total	0.104	mg/L	0.0050	104	90	110			
Sample ID: MBLK-3	Method Blank				Run: AUTOAN201-B_090326A				03/26/09 10:07
Cyanide, Total	ND	mg/L	0.003						
Sample ID: B09031882-001DMS	Sample Matrix Spike				Run: AUTOAN201-B_090326A				03/26/09 15:15
Cyanide, Total	0.103	mg/L	0.0050	103	90	110			
Sample ID: B09031882-001DMSD	Sample Matrix Spike Duplicate				Run: AUTOAN201-B_090326A				03/26/09 15:17
Cyanide, Total	0.104	mg/L	0.0050	104	90	110			
Method: Kelada mod									Analytical Run: AUTOAN201-B_090402A
Sample ID: ICV-1	Initial Calibration Verification Standard								04/02/09 09:00
Cyanide, Total	0.152	mg/L	0.0050	101	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/08/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW7470A									Batch: 38059
Sample ID: MB-38059	Method Blank				Run: HGCV201-B_090401D				04/01/09 12:00
Mercury	ND	mg/L	5E-05						
Sample ID: LCS-38059	Laboratory Control Sample				Run: HGCV201-B_090401D				04/01/09 12:03
Mercury	0.00193	mg/L	0.0010	97	85	115			
Sample ID: B09031882-001BMS	Sample Matrix Spike				Run: HGCV201-B_090401D				04/01/09 12:07
Mercury	0.00193	mg/L	0.0010	97	85	115			
Sample ID: B09031882-001BMSD	Sample Matrix Spike Duplicate				Run: HGCV201-B_090401D				04/01/09 12:10
Mercury	0.00195	mg/L	0.0010	98	85	115	1	20	
Sample ID: B09031882-001BDIL	Serial Dilution				Run: HGCV201-B_090401D				04/01/09 12:12
Mercury	ND	mg/L	0.0010		0	0		20	N
Method: SW7470A									Analytical Run: HGCV201-B_090401D
Sample ID: QCS	Initial Calibration Verification Standard								04/01/09 11:49
Mercury	0.00198	mg/L	0.0010	99	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 03/31/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8081A									Batch: 37972
Sample ID: MB-37972	Method Blank				Run: AECD.I_090330B				03/30/09 14:52
4,4´-DDD	ND	ug/L	0.050						
4,4´-DDE	ND	ug/L	0.050						
4,4´-DDT	ND	ug/L	0.050						
Aldrin	ND	ug/L	0.050						
alpha-BHC	ND	ug/L	0.050						
alpha-Chlordane	ND	ug/L	0.050						
beta-BHC	ND	ug/L	0.050						
Chlordane	ND	ug/L	0.50						
delta-BHC	ND	ug/L	0.050						
Dieldrin	ND	ug/L	0.050						
Endosulfan I	ND	ug/L	0.050						
Endosulfan II	ND	ug/L	0.050						
Endosulfan sulfate	ND	ug/L	0.050						
Endrin	ND	ug/L	0.050						
Endrin aldehyde	ND	ug/L	0.050						
Endrin ketone	ND	ug/L	0.050						
gamma-BHC (Lindane)	ND	ug/L	0.050						
gamma-Chlordane	ND	ug/L	0.050						
Heptachlor	ND	ug/L	0.050						
Heptachlor epoxide	ND	ug/L	0.050						
Isodrin	ND	ug/L	0.050						
Kepone	ND	ug/L	0.10						
Methoxychlor	ND	ug/L	0.050						
Toxaphene	ND	ug/L	5.0						
Surr: Decachlorobiphenyl			0.050	102	44	119			
Surr: Tetrachloro-m-xylene			0.050	79	40	120			
Sample ID: LCS-37972	Laboratory Control Sample				Run: AECD.I_090330B				03/30/09 15:20
4,4´-DDD	0.982	ug/L	0.050	98	69	125			
4,4´-DDE	0.979	ug/L	0.050	98	52	137			
4,4´-DDT	0.932	ug/L	0.050	93	69	131			
Aldrin	0.882	ug/L	0.050	88	58	111			
alpha-BHC	0.903	ug/L	0.050	90	63	114			
alpha-Chlordane	0.982	ug/L	0.050	98	68	115			
beta-BHC	0.916	ug/L	0.050	92	62	121			
delta-BHC	0.966	ug/L	0.050	97	59	116			
Dieldrin	0.987	ug/L	0.050	99	75	130			
Endosulfan I	0.940	ug/L	0.050	94	62	129			
Endosulfan II	0.984	ug/L	0.050	98	72	124			
Endosulfan sulfate	0.939	ug/L	0.050	94	67	124			
Endrin	1.00	ug/L	0.050	100	62	143			
Endrin aldehyde	1.06	ug/L	0.050	106	50	124			
Endrin ketone	0.965	ug/L	0.050	97	68	134			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 03/31/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8081A									Batch: 37972
Sample ID: LCS-37972	Laboratory Control Sample				Run: AECD.I_090330B				03/30/09 15:20
gamma-BHC (Lindane)	0.906	ug/L	0.050	91	64	118			
gamma-Chlordane	0.891	ug/L	0.050	89	68	117			
Heptachlor	0.810	ug/L	0.050	81	57	118			
Heptachlor epoxide	0.924	ug/L	0.050	92	70	120			
Isodrin	0.834	ug/L	0.050	83	61	116			
Methoxychlor	0.928	ug/L	0.050	93	63	137			
Surr: Decachlorobiphenyl			0.050	99	44	119			
Surr: Tetrachloro-m-xylene			0.050	74	40	120			
Sample ID: LCS3-37972	Laboratory Control Sample				Run: AECD.I_090330B				03/30/09 15:48
Toxaphene	4.63	ug/L	5.0	93	51	119			
Surr: Decachlorobiphenyl			0.050	102	44	119			
Surr: Tetrachloro-m-xylene			0.050	78	40	120			
Sample ID: LCS11-37972	Laboratory Control Sample				Run: AECD.I_090330B				03/30/09 16:16
Kepone	0.147	ug/L	0.10	15	10	113			
Surr: Decachlorobiphenyl			0.050	103	44	119			
Surr: Tetrachloro-m-xylene			0.050	78	40	120			
Sample ID: B09031882-002GMT	Sample Matrix Spike				Run: AECD.I_090330B				03/30/09 19:31
4,4´-DDD	1.07	ug/L	0.050	107	69	125			
4,4´-DDE	1.01	ug/L	0.050	101	52	137			
4,4´-DDT	0.968	ug/L	0.050	97	69	131			
Aldrin	0.942	ug/L	0.050	94	58	111			
alpha-BHC	0.955	ug/L	0.050	96	63	114			
alpha-Chlordane	1.02	ug/L	0.050	102	68	115			
beta-BHC	0.945	ug/L	0.050	94	62	121			
delta-BHC	0.987	ug/L	0.050	99	59	116			
Dieldrin	1.00	ug/L	0.050	100	75	130			
Endosulfan I	0.970	ug/L	0.050	97	62	129			
Endosulfan II	1.04	ug/L	0.050	104	72	124			
Endosulfan sulfate	1.03	ug/L	0.050	103	67	124			
Endrin	1.03	ug/L	0.050	103	62	143			
Endrin aldehyde	1.16	ug/L	0.050	116	50	124			
Endrin ketone	1.01	ug/L	0.050	101	68	134			
gamma-BHC (Lindane)	0.948	ug/L	0.050	95	64	118			
gamma-Chlordane	0.929	ug/L	0.050	93	68	117			
Heptachlor	0.868	ug/L	0.050	87	57	118			
Heptachlor epoxide	0.963	ug/L	0.050	96	70	120			
Isodrin	0.875	ug/L	0.050	87	61	116			
Methoxychlor	0.954	ug/L	0.050	95	63	137			
Surr: Decachlorobiphenyl			0.050	99	44	119			
Surr: Tetrachloro-m-xylene			0.050	80	40	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept

Project: Old Landfill

Report Date: 03/31/09

Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8081A								Batch: 37972	
Sample ID: B09031882-002GDT	Sample Matrix Spike Duplicate				Run: AECD.I_090330B			03/30/09 19:59	
4,4′-DDD	0.996	ug/L	0.050	100	69	125	7.2	40	
4,4′-DDE	1.01	ug/L	0.050	101	52	137	0	40	
4,4′-DDT	0.972	ug/L	0.050	97	69	131	0.4	40	
Aldrin	0.951	ug/L	0.050	95	58	111	1	40	
alpha-BHC	0.998	ug/L	0.050	100	63	114	4.4	40	
alpha-Chlordane	1.02	ug/L	0.050	102	68	115	0	40	
beta-BHC	0.971	ug/L	0.050	97	62	121	2.7	40	
delta-BHC	1.00	ug/L	0.050	100	59	116	1.3	40	
Dieldrin	1.02	ug/L	0.050	102	75	130	2	40	
Endosulfan I	0.970	ug/L	0.050	97	62	129	0	40	
Endosulfan II	1.00	ug/L	0.050	100	72	124	3.9	40	
Endosulfan sulfate	1.04	ug/L	0.050	104	67	124	1	40	
Endrin	1.04	ug/L	0.050	104	62	143	1	40	
Endrin aldehyde	1.18	ug/L	0.050	118	50	124	1.7	40	
Endrin ketone	1.04	ug/L	0.050	104	68	134	2.9	40	
gamma-BHC (Lindane)	0.989	ug/L	0.050	99	64	118	4.2	40	
gamma-Chlordane	0.917	ug/L	0.050	92	68	117	1.3	40	
Heptachlor	0.890	ug/L	0.050	89	57	118	2.5	40	
Heptachlor epoxide	0.931	ug/L	0.050	93	70	120	3.4	40	
Isodrin	0.886	ug/L	0.050	89	61	116	1.2	40	
Methoxychlor	0.991	ug/L	0.050	99	63	137	3.8	40	
Surr: Decachlorobiphenyl			0.050	101	44	119			
Surr: Tetrachloro-m-xylene			0.050	85	40	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 03/31/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8082									Batch: 37972
Sample ID: MB-37972	Method Blank				Run: AECD.I_090330B				03/30/09 14:52
Aroclor 1016	ND	ug/L	0.50						
Aroclor 1221	ND	ug/L	0.50						
Aroclor 1232	ND	ug/L	0.50						
Aroclor 1242	ND	ug/L	0.50						
Aroclor 1248	ND	ug/L	0.50						
Aroclor 1254	ND	ug/L	0.50						
Aroclor 1260	ND	ug/L	0.50						
Aroclor 1262	ND	ug/L	0.50						
Aroclor 1268	ND	ug/L	0.50						
Surr: Decachlorobiphenyl			0.050	102	44	119			
Surr: Tetrachloro-m-xylene			0.050	79	40	120			
Sample ID: LCS1-37972	Laboratory Control Sample				Run: AECD.I_090330B				03/30/09 16:44
Aroclor 1016	9.00	ug/L	0.50	88	49	151			
Aroclor 1260	8.79	ug/L	0.50	88	55	149			
Surr: Decachlorobiphenyl			0.050	104	44	119			
Surr: Tetrachloro-m-xylene			0.050	80	40	120			
Sample ID: B09031882-003GMB	Sample Matrix Spike				Run: AECD.I_090330B				03/30/09 20:26
Aroclor 1016	8.89	ug/L	0.50	89	49	151			
Aroclor 1260	8.66	ug/L	0.50	87	55	149			
Surr: Decachlorobiphenyl			0.050	92	44	119			
Surr: Tetrachloro-m-xylene			0.050	82	40	120			
Sample ID: B09031882-003GDB	Sample Matrix Spike Duplicate				Run: AECD.I_090330B				03/30/09 20:54
Aroclor 1016	9.03	ug/L	0.50	90	49	151	1.6	40	
Aroclor 1260	8.41	ug/L	0.50	84	55	149	2.9	40	
Surr: Decachlorobiphenyl			0.050	89	44	119			
Surr: Tetrachloro-m-xylene			0.050	83	40	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/01/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **SW8151A**									Batch: 37983
Sample ID: **MB-37983**	Method Blank				Run: CECD.I_090331A				04/01/09 06:33
2,4-D	ND	ug/L	1.0						
Dinoseb	ND	ug/L	1.0						
2,4,5-T	ND	ug/L	0.20						
2,4,5-TP (Silvex)	ND	ug/L	0.20						
Surr: DCAA			0.10	110	57	125			
Sample ID: **LCS-37983**	Laboratory Control Sample				Run: CECD.I_090331A				04/01/09 07:06
2,4-D	5.28	ug/L	1.0	106	58	136			
Dinoseb	4.54	ug/L	1.0	91	13	146			
2,4,5-T	5.37	ug/L	0.20	107	68	152			
2,4,5-TP (Silvex)	5.81	ug/L	0.20	116	66	153			
Surr: DCAA			0.10	115	57	125			
Sample ID: **B09031882-001IMS**	Sample Matrix Spike				Run: CECD.I_090331A				04/01/09 08:11
2,4-D	5.43	ug/L	1.0	109	58	136			
Dinoseb	2.89	ug/L	1.0	58	13	146			
2,4,5-T	5.49	ug/L	0.20	110	68	152			
2,4,5-TP (Silvex)	5.92	ug/L	0.20	118	66	153			
Surr: DCAA			0.10	121	57	125			
Sample ID: **B09031882-001IMSD**	Sample Matrix Spike Duplicate				Run: CECD.I_090331A				04/01/09 08:43
2,4-D	5.59	ug/L	1.0	112	58	136	2.9	40	
Dinoseb	3.21	ug/L	1.0	64	13	146	10	40	
2,4,5-T	5.71	ug/L	0.20	114	68	152	3.9	40	
2,4,5-TP (Silvex)	6.17	ug/L	0.20	123	66	153	4.1	40	
Surr: DCAA			0.10	125	57	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/06/09
Work Order: B09031882

Method: **SW8260B** Batch: R127118

Sample ID: **lcs040109** Laboratory Control Sample Run: SV5972.I_090401A 04/01/09 10:56

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Acetone	38.9	ug/L	20	78	62	130			
Acetonitrile	39.2	ug/L	20	78	54	142			
Acrolein	34.2	ug/L	20	68	22	203			
Acrylonitrile	44.4	ug/L	20	89	60	130			
Benzene	4.32	ug/L	1.0	86	71	133			
Bromochloromethane	4.56	ug/L	1.0	91	68	131			
Bromodichloromethane	4.88	ug/L	1.0	98	67	138			
Bromoform	4.76	ug/L	1.0	95	64	136			
Bromomethane	4.68	ug/L	1.0	94	60	138			
Carbon disulfide	4.12	ug/L	1.0	82	46	145			
Carbon tetrachloride	5.08	ug/L	1.0	102	61	144			
Chlorobenzene	4.80	ug/L	1.0	96	78	136			
Chlorodibromomethane	4.92	ug/L	1.0	98	72	136			
Chloroethane	4.32	ug/L	1.0	86	64	136			
Chloroform	4.16	ug/L	1.0	83	69	133			
Chloromethane	3.57	ug/L	1.0	71	63	149			
1,2-Dibromo-3-chloropropane	4.08	ug/L	1.0	82	63	125			
1,2-Dibromoethane	5.16	ug/L	1.0	103	75	131			
Dibromomethane	5.04	ug/L	1.0	101	72	133			
1,2-Dichlorobenzene	4.64	ug/L	1.0	93	78	129			
1,3-Dichlorobenzene	4.44	ug/L	1.0	89	79	132			
1,4-Dichlorobenzene	4.52	ug/L	1.0	90	78	131			
trans-1,4-Dichloro-2-butene	3.81	ug/L	1.0	76	50	142			
Dichlorodifluoromethane	4.48	ug/L	1.0	90	55	141			
1,1-Dichloroethane	4.24	ug/L	1.0	85	72	130			
1,2-Dichloroethane	4.68	ug/L	1.0	94	57	146			
1,1-Dichloroethene	4.40	ug/L	1.0	88	66	142			
cis-1,2-Dichloroethene	4.40	ug/L	1.0	88	74	133			
trans-1,2-Dichloroethene	4.32	ug/L	1.0	86	76	138			
1,2-Dichloropropane	4.52	ug/L	1.0	90	72	135			
1,3-Dichloropropane	4.68	ug/L	1.0	94	75	134			
2,2-Dichloropropane	5.00	ug/L	1.0	100	42	167			
1,1-Dichloropropene	4.36	ug/L	1.0	87	72	140			
cis-1,3-Dichloropropene	4.84	ug/L	1.0	97	75	132			
trans-1,3-Dichloropropene	5.24	ug/L	1.0	105	77	145			
Ethylbenzene	4.40	ug/L	1.0	88	78	131			
Ethyl methacrylate	5.20	ug/L	1.0	104	54	133			
Hexachlorobutadiene	5.04	ug/L	1.0	101	65	141			
2-Hexanone	47.2	ug/L	20	94	72	131			
Iodomethane	5.80	ug/L	1.0	116	66	132			
Methacrylonitrile	46.8	ug/L	20	94	68	122			
Methyl ethyl ketone	44.0	ug/L	20	88	55	145			
Methyl isobutyl ketone	48.4	ug/L	20	97	73	129			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/06/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R127118
Sample ID: lcs040109	Laboratory Control Sample				Run: SV5972.I_090401A				04/01/09 10:56
Methyl methacrylate	5.16	ug/L	1.0	103	77	113			
Methylene chloride	4.08	ug/L	1.0	82	73	126			
Naphthalene	5.88	ug/L	1.0	118	55	139			
Propionitrile	41.6	ug/L	20	83	52	143			
Styrene	4.76	ug/L	1.0	95	76	134			
1,1,1,2-Tetrachloroethane	4.92	ug/L	1.0	98	75	135			
1,1,2,2-Tetrachloroethane	4.32	ug/L	1.0	86	72	132			
Tetrachloroethene	4.92	ug/L	1.0	98	78	137			
Toluene	4.80	ug/L	1.0	96	78	134			
1,2,4-Trichlorobenzene	5.16	ug/L	1.0	103	58	142			
1,1,1-Trichloroethane	4.72	ug/L	1.0	94	64	141			
1,1,2-Trichloroethane	4.84	ug/L	1.0	97	72	133			
Trichloroethene	4.76	ug/L	1.0	95	75	138			
Trichlorofluoromethane	4.72	ug/L	1.0	94	58	139			
1,2,3-Trichloropropane	4.32	ug/L	1.0	86	67	133			
Vinyl acetate	5.00	ug/L	1.0	100	31	124			
Vinyl chloride	4.40	ug/L	1.0	88	66	140			
m+p-Xylenes	9.16	ug/L	1.0	92	78	133			
o-Xylene	4.68	ug/L	1.0	94	79	136			
Surr: 1,2-Dichloroethane-d4			1.0	99	70	130			
Surr: Dibromofluoromethane			1.0	100	77	126			
Surr: p-Bromofluorobenzene			1.0	95	76	127			
Surr: Toluene-d8			1.0	101	79	122			
Sample ID: lcs_fap2_040109	Laboratory Control Sample				Run: SV5972.I_090401A				04/01/09 11:25
Allyl chloride	4.96	ug/L	1.0	99	68	126			
Chloroprene	5.88	ug/L	1.0	118	68	120			
Isobutanol	101	ug/L	50	81	71	137			
Pentachloroethane	4.96	ug/L	1.0	99	42	135			
Surr: 1,2-Dichloroethane-d4			1.0	98	70	130			
Surr: Dibromofluoromethane			1.0	101	77	126			
Surr: p-Bromofluorobenzene			1.0	94	76	127			
Surr: Toluene-d8			1.0	100	79	122			
Sample ID: blk040109	Method Blank				Run: SV5972.I_090401A				04/01/09 12:22
Acetone	ND	ug/L	20						
Acetonitrile	ND	ug/L	20						
Acrolein	ND	ug/L	20						
Acrylonitrile	ND	ug/L	20						
Benzene	ND	ug/L	1.0						
Bromochloromethane	ND	ug/L	1.0						
Bromodichloromethane	ND	ug/L	1.0						
Bromoform	ND	ug/L	1.0						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/06/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R127118
Sample ID: blk040109	Method Blank				Run: SV5972.I_090401A				04/01/09 12:22
Bromomethane	ND	ug/L	1.0						
Carbon disulfide	ND	ug/L	1.0						
Carbon tetrachloride	ND	ug/L	1.0						
Chlorobenzene	ND	ug/L	1.0						
Chlorodibromomethane	ND	ug/L	1.0						
Chloroethane	ND	ug/L	1.0						
Chloroform	ND	ug/L	1.0						
Chloromethane	ND	ug/L	1.0						
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0						
1,2-Dibromoethane	ND	ug/L	1.0						
Dibromomethane	ND	ug/L	1.0						
1,2-Dichlorobenzene	ND	ug/L	1.0						
1,3-Dichlorobenzene	ND	ug/L	1.0						
1,4-Dichlorobenzene	ND	ug/L	1.0						
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0						
Dichlorodifluoromethane	ND	ug/L	1.0						
1,1-Dichloroethane	ND	ug/L	1.0						
1,2-Dichloroethane	ND	ug/L	1.0						
1,1-Dichloroethene	ND	ug/L	1.0						
cis-1,2-Dichloroethene	ND	ug/L	1.0						
trans-1,2-Dichloroethene	ND	ug/L	1.0						
1,2-Dichloropropane	ND	ug/L	1.0						
1,3-Dichloropropane	ND	ug/L	1.0						
2,2-Dichloropropane	ND	ug/L	1.0						
1,1-Dichloropropene	ND	ug/L	1.0						
cis-1,3-Dichloropropene	ND	ug/L	1.0						
trans-1,3-Dichloropropene	ND	ug/L	1.0						
Ethylbenzene	ND	ug/L	1.0						
Ethyl methacrylate	ND	ug/L	1.0						
Hexachlorobutadiene	ND	ug/L	1.0						
2-Hexanone	ND	ug/L	20						
Iodomethane	ND	ug/L	1.0						
Methacrylonitrile	ND	ug/L	20						
Methyl ethyl ketone	ND	ug/L	20						
Methyl isobutyl ketone	ND	ug/L	20						
Methyl methacrylate	ND	ug/L	1.0						
Methylene chloride	ND	ug/L	1.0						
Naphthalene	ND	ug/L	1.0						
Propionitrile	ND	ug/L	20						
Styrene	ND	ug/L	1.0						
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0						
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0						
Tetrachloroethene	ND	ug/L	1.0						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/06/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R127118
Sample ID: blk040109	Method Blank				Run: SV5972.I_090401A				04/01/09 12:22
Toluene	ND	ug/L	1.0						
1,2,4-Trichlorobenzene	ND	ug/L	1.0						
1,1,1-Trichloroethane	ND	ug/L	1.0						
1,1,2-Trichloroethane	ND	ug/L	1.0						
Trichloroethene	ND	ug/L	1.0						
Trichlorofluoromethane	ND	ug/L	1.0						
1,2,3-Trichloropropane	ND	ug/L	1.0						
Vinyl acetate	ND	ug/L	1.0						
Vinyl chloride	ND	ug/L	1.0						
m+p-Xylenes	ND	ug/L	1.0						
o-Xylene	ND	ug/L	1.0						
Xylenes, Total	ND	ug/L	1.0						
Surr: 1,2-Dichloroethane-d4			1.0	94	70	130			
Surr: Dibromofluoromethane			1.0	98	77	126			
Surr: p-Bromofluorobenzene			1.0	96	76	127			
Surr: Toluene-d8			1.0	99	79	122			
Sample ID: B09031882-001Jms	Sample Matrix Spike				Run: SV5972.I_090401A				04/01/09 18:58
Acetone	67.4	ug/L	40	67	62	130			
Acetonitrile	510	ug/L	40	510	54	142			S
Acrolein	76.3	ug/L	40	76	22	203			
Acrylonitrile	87.2	ug/L	40	87	60	130			
Allyl chloride	10.6	ug/L	2.0	106	68	126			
Benzene	9.28	ug/L	2.0	93	71	133			
Bromochloromethane	9.92	ug/L	2.0	99	68	131			
Bromodichloromethane	9.84	ug/L	2.0	98	67	138			
Bromoform	9.52	ug/L	2.0	95	64	136			
Bromomethane	10.1	ug/L	2.0	101	60	138			
Carbon disulfide	6.80	ug/L	2.0	68	46	145			
Carbon tetrachloride	10.7	ug/L	2.0	107	61	144			
Chlorobenzene	10.2	ug/L	2.0	102	78	136			
Chlorodibromomethane	10.4	ug/L	2.0	104	72	136			
Chloroethane	9.92	ug/L	2.0	99	64	136			
Chloroform	9.12	ug/L	2.0	91	69	133			
Chloromethane	8.40	ug/L	2.0	84	63	149			
Chloroprene	11.9	ug/L	2.0	119	68	120			
1,2-Dibromo-3-chloropropane	9.20	ug/L	2.0	92	63	125			
1,2-Dibromoethane	11.0	ug/L	2.0	110	75	131			
Dibromomethane	10.6	ug/L	2.0	106	72	133			
1,2-Dichlorobenzene	9.84	ug/L	2.0	98	78	129			
1,3-Dichlorobenzene	9.52	ug/L	2.0	95	79	132			
1,4-Dichlorobenzene	9.60	ug/L	2.0	96	78	131			
trans-1,4-Dichloro-2-butene	7.15	ug/L	2.0	72	50	142			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/06/09
Work Order: B09031882

Method: **SW8260B** Batch: R127118

Sample ID: **B09031882-001Jms** Sample Matrix Spike Run: SV5972.I_090401A 04/01/09 18:58

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Dichlorodifluoromethane	10.2	ug/L	2.0	102	55	141			
1,1-Dichloroethane	9.20	ug/L	2.0	92	72	130			
1,2-Dichloroethane	9.84	ug/L	2.0	98	57	146			
1,1-Dichloroethene	9.52	ug/L	2.0	95	66	142			
cis-1,2-Dichloroethene	9.68	ug/L	2.0	97	74	133			
trans-1,2-Dichloroethene	9.52	ug/L	2.0	95	76	138			
1,2-Dichloropropane	10.0	ug/L	2.0	100	72	135			
1,3-Dichloropropane	9.76	ug/L	2.0	98	75	134			
2,2-Dichloropropane	10.2	ug/L	2.0	102	42	167			
1,1-Dichloropropene	9.60	ug/L	2.0	96	72	140			
cis-1,3-Dichloropropene	10.2	ug/L	2.0	102	75	132			
trans-1,3-Dichloropropene	11.1	ug/L	2.0	111	77	145			
Ethylbenzene	9.44	ug/L	2.0	94	78	131			
Ethyl methacrylate	10.1	ug/L	2.0	101	54	133			
Hexachlorobutadiene	10.6	ug/L	2.0	106	65	141			
2-Hexanone	88.0	ug/L	40	88	72	131			
Iodomethane	11.0	ug/L	2.0	110	66	132			
Isobutanol	140	ug/L	100	56	71	137			S
Methacrylonitrile	92.0	ug/L	40	92	68	122			
Methyl ethyl ketone	69.3	ug/L	40	69	55	145			
Methyl isobutyl ketone	92.0	ug/L	40	92	73	129			
Methyl methacrylate	9.68	ug/L	2.0	97	77	113			
Methylene chloride	8.96	ug/L	2.0	90	73	126			
Naphthalene	9.12	ug/L	2.0	91	55	139			
Pentachloroethane	11.3	ug/L	2.0	113	42	135			
Propionitrile	63.4	ug/L	40	63	52	143			
Styrene	9.68	ug/L	2.0	97	76	134			
1,1,1,2-Tetrachloroethane	10.4	ug/L	2.0	104	75	135			
1,1,2,2-Tetrachloroethane	9.44	ug/L	2.0	94	72	132			
Tetrachloroethene	10.8	ug/L	2.0	108	78	137			
Toluene	10.4	ug/L	2.0	104	78	134			
1,2,4-Trichlorobenzene	9.28	ug/L	2.0	93	58	142			
1,1,1-Trichloroethane	10.2	ug/L	2.0	102	64	141			
1,1,2-Trichloroethane	10.4	ug/L	2.0	104	72	133			
Trichloroethene	10.2	ug/L	2.0	102	75	138			
Trichlorofluoromethane	10.6	ug/L	2.0	106	58	139			
1,2,3-Trichloropropane	8.72	ug/L	2.0	87	67	133			
Vinyl acetate	8.96	ug/L	2.0	90	31	124			
Vinyl chloride	9.92	ug/L	2.0	99	66	140			
m+p-Xylenes	19.6	ug/L	2.0	98	78	133			
o-Xylene	9.92	ug/L	2.0	99	79	136			
Surr: 1,2-Dichloroethane-d4			2.0	93	70	130			
Surr: Dibromofluoromethane			2.0	99	77	126			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/06/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B								Batch: R127118	
Sample ID: B09031882-001Jms	Sample Matrix Spike				Run: SV5972.I_090401A			04/01/09 18:58	
Surr: p-Bromofluorobenzene			2.0	94	76	127			
Surr: Toluene-d8			2.0	100	79	122			
Sample ID: B09031882-001Jmsd	Sample Matrix Spike Duplicate				Run: SV5972.I_090401A			04/01/09 19:26	
Acetone	79.9	ug/L	40	80	62	130	17	20	
Acetonitrile	518	ug/L	40	518	54	142	1.7	20	S
Acrolein	78.2	ug/L	40	78	22	203	2.5	20	
Acrylonitrile	85.6	ug/L	40	86	60	130	1.9	20	
Allyl chloride	10.8	ug/L	2.0	108	68	126	2.2	20	
Benzene	9.84	ug/L	2.0	98	71	133	5.9	20	
Bromochloromethane	10.1	ug/L	2.0	101	68	131	1.6	20	
Bromodichloromethane	10.2	ug/L	2.0	102	67	138	4	20	
Bromoform	10.3	ug/L	2.0	103	64	136	8.1	20	
Bromomethane	10.9	ug/L	2.0	109	60	138	7.6	20	
Carbon disulfide	7.90	ug/L	2.0	79	46	145	15	20	
Carbon tetrachloride	11.4	ug/L	2.0	114	61	144	6.5	20	
Chlorobenzene	10.9	ug/L	2.0	109	78	136	6.1	20	
Chlorodibromomethane	10.7	ug/L	2.0	107	72	136	3	20	
Chloroethane	10.2	ug/L	2.0	102	64	136	2.4	20	
Chloroform	9.44	ug/L	2.0	94	69	133	3.4	20	
Chloromethane	8.72	ug/L	2.0	87	63	149	3.7	20	
Chloroprene	12.7	ug/L	2.0	127	68	120	6.5	20	S
1,2-Dibromo-3-chloropropane	10.3	ug/L	2.0	103	63	125	11	20	
1,2-Dibromoethane	10.9	ug/L	2.0	109	75	131	0.7	20	
Dibromomethane	11.1	ug/L	2.0	111	72	133	4.4	20	
1,2-Dichlorobenzene	10.6	ug/L	2.0	106	78	129	7.8	20	
1,3-Dichlorobenzene	10.4	ug/L	2.0	104	79	132	8.8	20	
1,4-Dichlorobenzene	10.3	ug/L	2.0	103	78	131	7.2	20	
trans-1,4-Dichloro-2-butene	8.64	ug/L	2.0	86	50	142	19	20	
Dichlorodifluoromethane	10.4	ug/L	2.0	104	55	141	1.6	20	
1,1-Dichloroethane	9.68	ug/L	2.0	97	72	130	5.1	20	
1,2-Dichloroethane	9.92	ug/L	2.0	99	57	146	0.8	20	
1,1-Dichloroethene	10.0	ug/L	2.0	100	66	142	4.9	20	
cis-1,2-Dichloroethene	9.84	ug/L	2.0	98	74	133	1.6	20	
trans-1,2-Dichloroethene	10.0	ug/L	2.0	100	76	138	4.9	20	
1,2-Dichloropropane	10.2	ug/L	2.0	102	72	135	2.4	20	
1,3-Dichloropropane	10.2	ug/L	2.0	102	75	134	4.8	20	
2,2-Dichloropropane	10.6	ug/L	2.0	106	42	167	3.8	20	
1,1-Dichloropropene	9.84	ug/L	2.0	98	72	140	2.5	20	
cis-1,3-Dichloropropene	10.6	ug/L	2.0	106	75	132	3.8	20	
trans-1,3-Dichloropropene	11.4	ug/L	2.0	114	77	145	2.1	20	
Ethylbenzene	10.0	ug/L	2.0	100	78	131	5.8	20	
Ethyl methacrylate	11.2	ug/L	2.0	112	54	133	11	20	

Qualifiers:

RL - Analyte reporting limit.

S - Spike recovery outside of advisory limits.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/06/09
Work Order: B09031882

Method: **SW8260B**

Batch: R127118

Sample ID: **B09031882-001Jmsd** Sample Matrix Spike Duplicate Run: SV5972.I_090401A 04/01/09 19:26

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Hexachlorobutadiene	12.3	ug/L	2.0	123	65	141	15	20	
2-Hexanone	88.8	ug/L	40	89	72	131	0.9	20	
Iodomethane	12.4	ug/L	2.0	124	66	132	12	20	
Isobutanol	202	ug/L	100	81	71	137	36	20	R
Methacrylonitrile	99.2	ug/L	40	99	68	122	7.5	20	
Methyl ethyl ketone	72.0	ug/L	40	72	55	145	3.9	20	
Methyl isobutyl ketone	94.4	ug/L	40	94	73	129	2.6	20	
Methyl methacrylate	10.4	ug/L	2.0	104	77	113	7.2	20	
Methylene chloride	9.28	ug/L	2.0	93	73	126	3.5	20	
Naphthalene	13.1	ug/L	2.0	131	55	139	36	20	R
Pentachloroethane	11.7	ug/L	2.0	117	42	135	3.5	20	
Propionitrile	74.7	ug/L	40	75	52	143	16	20	
Styrene	10.2	ug/L	2.0	102	76	134	4.8	20	
1,1,1,2-Tetrachloroethane	10.8	ug/L	2.0	108	75	135	3.8	20	
1,1,2,2-Tetrachloroethane	9.76	ug/L	2.0	98	72	132	3.3	20	
Tetrachloroethene	11.5	ug/L	2.0	115	78	137	6.5	20	
Toluene	10.7	ug/L	2.0	107	78	134	3	20	
1,2,4-Trichlorobenzene	12.2	ug/L	2.0	122	58	142	28	20	R
1,1,1-Trichloroethane	10.6	ug/L	2.0	106	64	141	3.9	20	
1,1,2-Trichloroethane	10.6	ug/L	2.0	106	72	133	1.5	20	
Trichloroethene	11.0	ug/L	2.0	110	75	138	7.5	20	
Trichlorofluoromethane	10.8	ug/L	2.0	108	58	139	2.2	20	
1,2,3-Trichloropropane	9.28	ug/L	2.0	93	67	133	6.2	20	
Vinyl acetate	9.04	ug/L	2.0	90	31	124	0.9	20	
Vinyl chloride	10.2	ug/L	2.0	102	66	140	3.2	20	
m+p-Xylenes	20.7	ug/L	2.0	104	78	133	5.6	20	
o-Xylene	10.4	ug/L	2.0	104	79	136	4.7	20	
Surr: 1,2-Dichloroethane-d4			2.0	94	70	130			
Surr: Dibromofluoromethane			2.0	97	77	126			
Surr: p-Bromofluorobenzene			2.0	95	76	127			
Surr: Toluene-d8			2.0	99	79	122			

Qualifiers:

RL - Analyte reporting limit.

R - RPD exceeds advisory limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/07/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8270C									Batch: 37974
Sample ID: MB-37974	Method Blank				Run: SV5973.I_090330A				03/30/09 22:04
1,2,4,5-Tetrachlorobenzene	ND	ug/L	10						
1,2,4-Trichlorobenzene	ND	ug/L	10						
1,2-Dichlorobenzene	ND	ug/L	10						
1,3,5-Trinitrobenzene	ND	ug/L	10						
1,3-Dichlorobenzene	ND	ug/L	10						
1,3-Dinitrobenzene	ND	ug/L	10						
1,4-Benzenediamine	ND	ug/L	10						P
1,4-Dichlorobenzene	ND	ug/L	10						
1,4-Naphthoquinone	ND	ug/L	10						
1-Methylnaphthalene	ND	ug/L	10						
1-Naphthylamine	ND	ug/L	10						
2,3,4,6-Tetrachlorophenol	ND	ug/L	10						
2,4,5-Trichlorophenol	ND	ug/L	10						
2,4,6-Trichlorophenol	ND	ug/L	10						
2,4-Dichlorophenol	ND	ug/L	10						
2,4-Dimethylphenol	ND	ug/L	10						
2,4-Dinitrophenol	ND	ug/L	50						
2,4-Dinitrotoluene	ND	ug/L	10						
2,6-Dinitrotoluene	ND	ug/L	10						
2-Acetylaminofluorene	ND	ug/L	10						
2-Chloronaphthalene	ND	ug/L	10						
2-Chlorophenol	ND	ug/L	10						
2-Methylnaphthalene	ND	ug/L	10						
2-Naphthylamine	ND	ug/L	10						
2-Nitroaniline	ND	ug/L	10						
2-Nitrophenol	ND	ug/L	10						
2-Picoline	ND	ug/L	10						
3,3´-Dichlorobenzidine	ND	ug/L	20						
3,3´-Dimethylbenzidine	ND	ug/L	10						
3-Methylcholanthrene	ND	ug/L	10						
3-Nitroaniline	ND	ug/L	10						
4,6-Dinitro-2-methylphenol	ND	ug/L	50						
4-Aminobiphenyl	ND	ug/L	10						
4-Bromophenyl phenyl ether	ND	ug/L	10						
4-Chloro-2-methylphenol	ND	ug/L	10						
4-Chloro-3-methylphenol	ND	ug/L	10						
4-Chlorophenol	ND	ug/L	10						
4-Chlorophenyl phenyl ether	ND	ug/L	10						
4-Nitroaniline	ND	ug/L	10						
4-Nitrophenol	ND	ug/L	50						
4-Nitroquinoline-n-oxide	ND	ug/L	10						
5-Nitro-o-toluidine	ND	ug/L	10						
7,12-Dimethylbenz(a)anthracene	ND	ug/L	10						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

P - Poor method performance. Method validations have shown no recoveries at low levels or erratic method performance.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/07/09
Work Order: B09031882

Method: **SW8270C**

Batch: 37974

Sample ID: **MB-37974** Method Blank Run: SV5973.I_090330A 03/30/09 22:04

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
a,a-Dimethylphenethylamine	ND	ug/L							P
Acenaphthene	ND	ug/L	10						
Acenaphthylene	ND	ug/L	10						
Acetophenone	ND	ug/L	10						
Aniline	ND	ug/L	10						
Anthracene	ND	ug/L	10						
Aramite	ND	ug/L	10						
Azobenzene	ND	ug/L	10						
Benzidine	ND	ug/L	20						
Benzo(a)anthracene	ND	ug/L	10						
Benzo(a)pyrene	ND	ug/L	10						
Benzo(b)fluoranthene	ND	ug/L	10						
Benzo(g,h,i)perylene	ND	ug/L	10						
Benzo(k)fluoranthene	ND	ug/L	10						
Benzyl alcohol	ND	ug/L	10						
bis(-2-chloroethoxy)Methane	ND	ug/L	10						
bis(-2-chloroethyl)Ether	ND	ug/L	10						
bis(2-chloroisopropyl)Ether	ND	ug/L	10						
bis(2-ethylhexyl)Phthalate	ND	ug/L	10						
Butylbenzylphthalate	ND	ug/L	10						
Chlorobenzilate	ND	ug/L	10						
Chrysene	ND	ug/L	10						
Diallate	ND	ug/L	10						
Dibenzo(a,h)anthracene	ND	ug/L	10						
Dibenzofuran	ND	ug/L	10						
Diethyl phthalate	ND	ug/L	10						
Dimethoate	ND	ug/L	10						
Dimethyl phthalate	ND	ug/L	10						
Di-n-butyl phthalate	ND	ug/L	10						
Di-n-octyl phthalate	ND	ug/L	10						
Diphenylamine	ND	ug/L	10						
Disulfoton	ND	ug/L	10						
Ethyl methanesulfonate	ND	ug/L	10						
Famphur	ND	ug/L	10						
Fluoranthene	ND	ug/L	10						
Fluorene	ND	ug/L	10						
Hexachlorobenzene	ND	ug/L	10						
Hexachlorobutadiene	ND	ug/L	10						
Hexachlorocyclopentadiene	ND	ug/L	20						
Hexachloroethane	ND	ug/L	10						
Hexachlorophene	ND	ug/L							P
Hexachloropropene	ND	ug/L	10						
Indeno(1,2,3-cd)pyrene	ND	ug/L	10						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

P - Poor method performance. Method validations have shown no recoveries at low levels or erratic method performance.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept — **Report Date:** 04/07/09
Project: Old Landfill — **Work Order:** B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8270C									Batch: 37974
Sample ID: MB-37974	Method Blank				Run: SV5973.I_090330A				03/30/09 22:04
Isophorone	ND	ug/L	10						
Isosafrole	ND	ug/L	10						
m+p-Cresols	ND	ug/L	10						
Methapyrilene	ND	ug/L	10						
Methyl methanesulfonate	ND	ug/L	10						
Methyl parathion	ND	ug/L	10						
Naphthalene	ND	ug/L	10						
Nitrobenzene	ND	ug/L	10						
n-Nitrosodiethylamine	ND	ug/L	10						
n-Nitrosodimethylamine	ND	ug/L	10						
n-Nitroso-di-n-butylamine	ND	ug/L	10						
n-Nitroso-di-n-propylamine	ND	ug/L	10						
n-Nitrosodiphenylamine	ND	ug/L	10						
n-Nitrosomethylethylamine	ND	ug/L	10						
n-Nitrosomorpholine	ND	ug/L	10						
n-Nitrosopiperidine	ND	ug/L	10						
n-Nitrosopyrrolidine	ND	ug/L	10						
o,o,o-Triethyl phosphorothioate	ND	ug/L	10						
o-Cresol	ND	ug/L	10						
o-Toluidine	ND	ug/L	10						
p-(dimethylamino)Azobenzene	ND	ug/L	10						
Parathion	ND	ug/L	10						
p-Chloroaniline	ND	ug/L	10						
Pentachlorobenzene	ND	ug/L	10						
Pentachloronitrobenzene	ND	ug/L	10						
Pentachlorophenol	ND	ug/L	50						
Phenacetin	ND	ug/L	10						
Phenanthrene	ND	ug/L	10						
Phenol	ND	ug/L	10						
Phorate	ND	ug/L	10						
Pronamide	ND	ug/L	10						
Pyrene	ND	ug/L	10						
Pyridine	ND	ug/L	10						
Safrole	ND	ug/L	10						
Sulfotep	ND	ug/L	10						
Thionazin	ND	ug/L	10						
Surr: 2,4,6-Tribromophenol			10	54	21	130			
Surr: 2-Fluorobiphenyl			10	53	28	107			
Surr: 2-Fluorophenol			10	41	20	56			
Surr: Nitrobenzene-d5			10	52	32	94			
Surr: Phenol-d5			10	32	19	45			
Surr: Terphenyl-d14			10	55	32	122			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept **Report Date:** 04/07/09
Project: Old Landfill **Work Order:** B09031882

Method: **SW8270C** Batch: 37974

Sample ID: **LCS-37974** Laboratory Control Sample Run: SV5973.I_090330A 03/30/09 22:35

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	55.7	ug/L	10	56	31	87			
1,2-Dichlorobenzene	53.0	ug/L	10	53	33	76			
1,3-Dichlorobenzene	55.2	ug/L	10	55	31	74			
1,4-Dichlorobenzene	50.1	ug/L	10	50	30	74			
1-Methylnaphthalene	63.5	ug/L	10	64	36	95			
2,4,5-Trichlorophenol	58.7	ug/L	10	59	27	100			
2,4,6-Trichlorophenol	57.5	ug/L	10	57	21	130			
2,4-Dichlorophenol	58.4	ug/L	10	58	35	86			
2,4-Dimethylphenol	58.3	ug/L	10	58	33	92			
2,4-Dinitrophenol	26.5	ug/L	50	27	10	112			
2,4-Dinitrotoluene	69.0	ug/L	10	69	44	110			
2,6-Dinitrotoluene	68.7	ug/L	10	69	40	113			
2-Chloronaphthalene	64.3	ug/L	10	64	38	100			
2-Chlorophenol	50.3	ug/L	10	50	30	77			
2-Methylnaphthalene	67.4	ug/L	10	67	36	89			
2-Nitroaniline	68.5	ug/L	10	69	38	98			
2-Nitrophenol	57.4	ug/L	10	57	31	94			
3,3´-Dichlorobenzidine	51.1	ug/L	20	51	29	110			
3-Nitroaniline	53.9	ug/L	10	54	33	86			
4,6-Dinitro-2-methylphenol	41.7	ug/L	50	42	10	118			
4-Bromophenyl phenyl ether	67.3	ug/L	10	67	36	109			
4-Chloro-2-methylphenol	61.4	ug/L	10	61	36	89			
4-Chloro-3-methylphenol	64.0	ug/L	10	64	36	95			
4-Chlorophenol	55.7	ug/L	10	56	25	91			
4-Chlorophenyl phenyl ether	68.6	ug/L	10	69	38	107			
4-Nitroaniline	63.1	ug/L	10	63	34	102			
4-Nitrophenol	24.7	ug/L	50	25	10	49			
Acenaphthene	67.7	ug/L	10	68	43	97			
Acenaphthylene	65.6	ug/L	10	66	45	94			
Aniline	37.7	ug/L	10	38	10	38			
Anthracene	68.0	ug/L	10	68	50	106			
Azobenzene	66.4	ug/L	10	66	41	103			
Benzidine	26.5	ug/L	20	27	10	142			
Benzo(a)anthracene	67.2	ug/L	10	67	39	121			
Benzo(a)pyrene	60.4	ug/L	10	60	42	109			
Benzo(b)fluoranthene	66.6	ug/L	10	67	32	124			
Benzo(g,h,i)perylene	68.9	ug/L	10	69	42	117			
Benzo(k)fluoranthene	68.3	ug/L	10	68	46	104			
Benzyl alcohol	46.2	ug/L	10	46	27	64			
bis(-2-chloroethoxy)Methane	61.0	ug/L	10	61	33	93			
bis(-2-chloroethyl)Ether	56.7	ug/L	10	57	28	91			
bis(2-chloroisopropyl)Ether	56.6	ug/L	10	57	33	87			
bis(2-ethylhexyl)Phthalate	56.6	ug/L	10	57	13	127			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/07/09
Work Order: B09031882

Method: **SW8270C** Batch: 37974

Sample ID: **LCS-37974** Laboratory Control Sample Run: SV5973.I_090330A 03/30/09 22:35

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Butylbenzylphthalate	64.0	ug/L	10	64	31	118			
Chrysene	69.4	ug/L	10	69	47	110			
Dibenzo(a,h)anthracene	72.1	ug/L	10	72	44	114			
Dibenzofuran	69.1	ug/L	10	69	44	90			
Diethyl phthalate	68.0	ug/L	10	68	38	109			
Dimethyl phthalate	65.4	ug/L	10	65	36	110			
Di-n-butyl phthalate	64.8	ug/L	10	65	33	117			
Di-n-octyl phthalate	56.9	ug/L	10	57	25	123			
Fluoranthene	66.9	ug/L	10	67	45	117			
Fluorene	67.7	ug/L	10	68	42	104			
Hexachlorobenzene	62.7	ug/L	10	63	36	109			
Hexachlorobutadiene	51.3	ug/L	10	51	27	83			
Hexachlorocyclopentadiene	46.6	ug/L	10	47	30	85			
Hexachloroethane	45.9	ug/L	10	46	28	72			
Indeno(1,2,3-cd)pyrene	60.9	ug/L	10	61	35	123			
Isophorone	61.5	ug/L	10	62	36	99			
m+p-Cresols	49.1	ug/L	10	49	24	83			
Naphthalene	61.5	ug/L	10	62	37	88			
Nitrobenzene	58.6	ug/L	10	59	35	86			
n-Nitrosodimethylamine	29.8	ug/L	10	30	19	43			
n-Nitroso-di-n-propylamine	61.6	ug/L	10	62	34	102			
n-Nitrosodiphenylamine	75.7	ug/L	10	76	33	106			
o-Cresol	53.7	ug/L	10	54	22	88			
p-Chloroaniline	52.9	ug/L	10	53	20	80			
Pentachlorophenol	56.1	ug/L	50	56	24	117			
Phenanthrene	71.2	ug/L	10	71	38	113			
Phenol	35.5	ug/L	10	36	18	48			
Pyrene	64.9	ug/L	10	65	39	115			
Pyridine	28.3	ug/L	10	28	10	47			
Surr: 2,4,6-Tribromophenol			10	57	21	130			
Surr: 2-Fluorobiphenyl			10	52	28	107			
Surr: 2-Fluorophenol			10	32	20	56			
Surr: Nitrobenzene-d5			10	50	32	94			
Surr: Phenol-d5			10	29	19	45			
Surr: Terphenyl-d14			10	50	32	122			

Sample ID: **App2A-37974** Laboratory Control Sample Run: SV5973.I_090330A 03/30/09 23:05

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
1,2,4,5-Tetrachlorobenzene	49.7	ug/L	10	50	15	124			
1,3-Dinitrobenzene	75.0	ug/L	10	75	24	136			
1,4-Naphthoquinone	65.0	ug/L	10	65	59	103			
2,3,4,6-Tetrachlorophenol	56.0	ug/L	10	56	10	123			
2-Acetylaminofluorene	66.6	ug/L	10	67	39	130			
3-Methylcholanthrene	59.2	ug/L	10	59	10	183			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/07/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8270C									Batch: 37974
Sample ID: App2A-37974	Laboratory Control Sample				Run: SV5973.I_090330A				03/30/09 23:05
7,12-Dimethylbenz(a)anthracene	52.0	ug/L	10	52	30	130			
Aramite	68.6	ug/L	10	69	15	152			
Chlorobenzilate	65.5	ug/L	10	66	36	128			
Diallate	65.0	ug/L	10	65	10	157			
Dimethoate	76.0	ug/L	10	76	15	151			
Disulfoton	69.3	ug/L	10	69	10	159			
Ethyl methanesulfonate	53.8	ug/L	10	54	10	143			
Hexachloropropene	51.3	ug/L	10	51	10	131			
Isosafrole	56.3	ug/L	10	56	27	114			
Methapyrilene	36.7	ug/L		37	20	140			
Methyl methanesulfonate	30.4	ug/L	10	30	14	123			
Methyl parathion	85.3	ug/L	10	85	15	159			
o,o,o-Triethyl phosphorothioate	50.7	ug/L	10	51	31	108			
Parathion	73.1	ug/L	10	73	31	137			
Pentachlorobenzene	58.8	ug/L	10	59	15	127			
Phorate	64.6	ug/L	10	65	16	153			
Safrole	59.7	ug/L	10	60	28	113			
Sulfotep	54.0	ug/L	10	54	15	135			
Thionazin	72.9	ug/L	10	73	25	147			
Surr: 2,4,6-Tribromophenol			10	56	21	130			
Surr: 2-Fluorobiphenyl			10	51	28	107			
Surr: 2-Fluorophenol			10	31	20	56			
Surr: Nitrobenzene-d5			10	49	32	94			
Surr: Phenol-d5			10	28	19	45			
Surr: Terphenyl-d14			10	54	32	122			
Sample ID: App2B-37974	Laboratory Control Sample				Run: SV5973.I_090330A				03/30/09 23:35
1,3,5-Trinitrobenzene	91.5	ug/L	10	92	28	77			S
1-Naphthylamine	59.6	ug/L	10	60	10	111			
2-Naphthylamine	56.7	ug/L	10	57	10	120			
2-Picoline	28.2	ug/L	10	28	13	93			
3,3´-Dimethylbenzidine	45.1	ug/L	10	45	10	116			
4-Aminobiphenyl	61.6	ug/L	10	62	20	131			
4-Nitroquinoline-n-oxide	79.6	ug/L	10	80	26	149			
5-Nitro-o-toluidine	70.8	ug/L	10	71	29	131			
Acetophenone	56.2	ug/L	10	56	17	144			
Diphenylamine	68.0	ug/L	10	68	31	140			
n-Nitrosodiethylamine	55.2	ug/L	10	55	18	130			
n-Nitroso-di-n-butylamine	65.9	ug/L	10	66	21	159			
n-Nitrosomethylethylamine	52.9	ug/L	10	53	14	114			
n-Nitrosomorpholine	50.4	ug/L	10	50	10	165			
n-Nitrosopiperidine	56.4	ug/L	10	56	23	148			
n-Nitrosopyrrolidine	51.0	ug/L	10	51	10	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/07/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8270C									Batch: 37974
Sample ID: App2B-37974	Laboratory Control Sample				Run: SV5973.I_090330A			03/30/09 23:35	
o-Toluidine	45.4	ug/L	10	45	10	136			
p-(dimethylamino)Azobenzene	70.1	ug/L	10	70	40	143			
Pentachloronitrobenzene	64.5	ug/L	10	65	10	172			
Phenacetin	54.0	ug/L	10	54	30	143			
Pronamide	65.2	ug/L	10	65	30	145			
Surr: 2,4,6-Tribromophenol			10	52	21	130			
Surr: 2-Fluorobiphenyl			10	49	28	107			
Surr: 2-Fluorophenol			10	35	20	56			
Surr: Nitrobenzene-d5			10	47	32	94			
Surr: Phenol-d5			10	28	19	45			
Surr: Terphenyl-d14			10	56	32	122			
Sample ID: B09031882-001FMS	Sample Matrix Spike				Run: SV5973.I_090330A			03/31/09 00:35	
1,2,4-Trichlorobenzene	64.0	ug/L	20	64	31	87			
1,4-Dichlorobenzene	60.2	ug/L	20	60	30	74			
2,4-Dinitrotoluene	75.8	ug/L	20	76	44	110			
2-Chlorophenol	97.6	ug/L	20	65	30	77			
4-Chloro-3-methylphenol	111	ug/L	20	74	36	95			
4-Nitrophenol	52.2	ug/L	100	35	10	49			
Acenaphthene	79.0	ug/L	20	79	43	97			
n-Nitroso-di-n-propylamine	47.0	ug/L	20	47	34	102			
Pentachlorophenol	110	ug/L	100	73	24	117			
Phenol	75.4	ug/L	20	50	18	48			S
Pyrene	90.6	ug/L	20	91	39	115			
Surr: 2,4,6-Tribromophenol			20	68	21	130			
Surr: 2-Fluorobiphenyl			20	61	28	107			
Surr: 2-Fluorophenol			20	52	20	56			
Surr: Nitrobenzene-d5			20	60	32	94			
Surr: Phenol-d5			20	49	19	45			S
Surr: Terphenyl-d14			20	55	32	122			
Sample ID: B09031882-002EMS	Sample Matrix Spike Duplicate				Run: SV5973.I_090330A			03/31/09 01:36	
1,2,4-Trichlorobenzene	68.0	ug/L	20	68	31	87	6.1	28	
1,4-Dichlorobenzene	65.6	ug/L	20	66	30	74	8.6	28	
2,4-Dinitrotoluene	68.4	ug/L	20	68	44	110	10	38	
2-Chlorophenol	110	ug/L	20	73	30	77	12	40	
4-Chloro-3-methylphenol	118	ug/L	20	78	36	95	5.8	42	
4-Nitrophenol	50.8	ug/L	100	34	10	49		50	
Acenaphthene	81.8	ug/L	20	82	43	97	3.5	31	
n-Nitroso-di-n-propylamine	58.6	ug/L	20	59	34	102	22	38	
Pentachlorophenol	126	ug/L	100	84	24	117	13	50	
Phenol	84.0	ug/L	20	56	18	48	11	42	S
Pyrene	94.8	ug/L	20	95	39	115	4.5	31	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Butte Silver Bow Public Works Dept
Project: Old Landfill

Report Date: 04/07/09
Work Order: B09031882

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8270C									Batch: 37974
Sample ID: B09031882-002EMS	Sample Matrix Spike Duplicate				Run: SV5973.I_090330A				03/31/09 01:36
Surr: 2,4,6-Tribromophenol			20	71	21	130	0	40	
Surr: 2-Fluorobiphenyl			20	62	28	107	0	40	
Surr: 2-Fluorophenol			20	52	20	56	0	40	
Surr: Nitrobenzene-d5			20	62	32	94	0	40	
Surr: Phenol-d5			20	48	19	45	0	40	S
Surr: Terphenyl-d14			20	64	32	122	0	40	
Sample ID: MB-37974	Method Blank				Run: SV5973.I_090401A				04/01/09 18:28
2,6-Dichlorophenol	ND	ug/L	10						
Sample ID: App2A-37974	Laboratory Control Sample				Run: SV5973.I_090401A				04/01/09 18:58
2,6-Dichlorophenol	50.3	ug/L	10	50	12	133			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

Energy Laboratories Inc
Workorder Receipt Checklist

Butte Silver Bow Public Works Dept

B09031882

Login completed by: Darwin C. Miller

Reviewed by: Denise Ruby

Reviewed Date: 3/27/2009 9:54:00 AM

Date and Time Received: 3/26/2009 9:15 AM

Received by: smr

Carrier name: Return-UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☐	No ☑	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	3°C On Ice		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☑	Not Applicable ☐

Contact and Corrective Action Comments:

3 trip blanks received broken in cooler. Sample BSB-GW-04 for Cyanide was received at pH ~8, 2 mL NaOH added to preserve to pH > 12.

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT- Provide as much information as possible.

Company Name: Pioneer Technical Services

Project Name, PWS, Permit, Etc.: Old Landfill

Sample Origin State: Mt

EPA/State Compliance: Yes ☒ No ☐

Report Mail Address:
63 1/2 W. Broadway
Butte Mt. 59701

Contact Name: Brad Hollamon

Phone/Fax: 406-490-7678

Email:

Sampler: (Please Print) Brad Hollamon

Invoice Address: BSB Public Works
126 W. Granite
Butte, Mt. 59701

Invoice Contact & Phone: Gary Keeler 406-497-6515

Purchase Order:

Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

☐ DW
☐ GSA
☐ POTW/WWTP
☐ State: ______
☐ Other: ______
☐ A2LA
☐ EDD/EDT(Electronic Data)
Format: ______
☐ LEVEL IV
☐ NELAC

Number of Containers
Sample Type: A W S V B O
Air Water Soils/Solids
Vegetation Bioassay Other

ANALYSIS REQUESTED

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: DM- Sb, As, Ba, Be, Cd, Cr, Cu, Co, Fe, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

Shipped by: RTRM UPS GRD

Cooler ID(s): x4

Receipt Temp 3 °C

On Ice: [✓ Yes] No

Custody Seal [✓ Y] N
Intact [✓ Y] N
Signature Match [✓ Y] N

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	SC, pH, Cl⁻, SO4⁻²	CN⁻	NO2/NO3, COD	Sulfide	8151	8081A	608	8270 Semi Vol	8260	Dis Metals ~~SEE ATTACHED~~	Normal Turnaround (TAT)	RUSH		LABORATORY USE ONLY
TB 1 BSB-GW-01	3/24/09	13, W	1220	X	X	X	X	X	X	X	X	X	X				B09031882-001
2 BSB-GW-02	↓	12, W	1450	X	X	X	X	X	X	X	X	X					-002
3 BSB-GW-03	↓	12, W	1510	X	X	X	X	X	X	X	X	X					-003
4 BSB-GW-04	3/25/09	12, W	1140	X	X	X	X	X	X	X	X	X					-004
5 BSB-GW-07	↓	3, W	1200									X					-005
6 TB 3-10-09 JST SHP0241																	-006
7																	
8																	
9																	
10																	

Custody Record MUST be Signed

Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
Brad Hollamon	3/25/09, 1310	Brad Hollamon			

Received by Laboratory: Date/Time: 3-26-09 9:15 Signature:

Sample Disposal: Return to Client: ______ Lab Disposal: X

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT- Provide as much information as possible.

Company Name: Pioneer Technical Services

Report Mail Address: 63½ W. Broadway
Butte Mt. 59701

Invoice Address: BSB Public Works
126 W. Granite
Butte, Mt. 59701

Project Name, PWS, Permit, Etc.: Old Landfill

Contact Name: Brad Hollamon Phone/Fax: 406-490-7678

Invoice Contact & Phone: Gary Keeler 406-497-6515

Sample Origin State: Mt

EPA/State Compliance: Yes ☒ No ☐

Email:

Sampler: (Please Print) Brad Hollamon

Purchase Order:

Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

☐ DW
☐ GSA
☐ POTW/WWTP
☐ State: ______
☐ Other: ______
☐ A2LA
☐ EDD/EDT(Electronic Data)
Format: ______
☐ LEVEL IV
☐ NELAC

Number of Containers
Sample Type: A W S V B O
Air Water Soils/Solids Vegetation Bioassay Other

ANALYSIS REQUESTED

Normal Turnaround (TAT)

RUSH

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: DM- Sb, As, Ba, Be, Cd, Cr, Cu, Co, Fe, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

Shipped by: RTRN UPS GRD

Cooler ID(s): ×4

Receipt Temp 3 °C

On Ice: [✓ Yes] No

Custody Seal [✓ Y] N
Intact [✓ Y] N
Signature Match [✓ Y] N

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	SC, pH, Cl⁻, SO4⁻²	CN⁻	NO2/NO3, COD	Sulfide	~~8151~~ PCB-8082A	~~8081A~~ PCB-8082 APP II	~~L08~~ ~~HRB-8151~~	8270 Semi Vol (DA)	8260	Dis. Metals SEE ATTACHED	Normal Turnaround (TAT)	RUSH	LABORATORY USE ONLY
TB 1 BSB-GW-01	3/24/09	13,W	1220	X	X	X	X	X	X	X	X	X	X			B09031882-001
2 BSB-GW-02	↓	12,W	1450	X	X	X	X	X	X	X	X	X				-002
3 BSB-GW-03	↓	12,W	1510	X	X	X	X	X	X	X	X	X				-003
4 BSB-GW-04	3/25/09	12,W	1140	X	X	X	X	X	X	X	X	X				-004
5 BSB-GW-07	↓	3,W	1200									X				-005
6 TB 3-10-09 JST SHP0241																-006
7																
8																
9																
10																

Custody Record MUST be Signed

Relinquished by (print): Brad Hollamon Date/Time: 3/25/09, 1310 Signature: Brad Hollamon
Received by (print): Date/Time: Signature:

Relinquished by (print): Date/Time: Signature:
Received by (print): Date/Time: Signature:

Received by Laboratory: Sandy Rusch Date/Time: 3-26-09 9:15 Signature:

Sample Disposal: Return to Client: ______ Lab Disposal: X

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.
Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

April 10, 2009

Shawn Bisch
BPAR-PIONEER-MT
63 1/2 W. Broadway
Butte, MT 59701

RE: Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

Dear Shawn Bisch:

Enclosed are the analytical results for sample(s) received by the laboratory on March 27, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julie Thieschafer

julie.thieschafer@pacelabs.com
Project Manager

Enclosures

APR 16 2009

CERTIFICATIONS

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

Minnesota Certification IDs

Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

SAMPLE SUMMARY

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1091879001	**BSB-GW-06**	Water	03/25/09 14:18	03/27/09 09:26
1091879002	**BSB-GW-08**	Water	03/25/09 14:30	03/27/09 09:26
1091879003	**BSB-GW-05**	Water	03/25/09 15:35	03/27/09 09:26
1091879004	**BSB-GW-09**	Water	03/25/09 16:30	03/27/09 09:26

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SAMPLE ANALYTE COUNT

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
1091879001	**BSB-GW-06**	ASTM D516-90,02	NMH	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		EPA 200.8	CJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		SM 4500-Cl E	NMH	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
1091879002	**BSB-GW-08**	ASTM D516-90,02	NMH	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		EPA 200.8	CJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		SM 4500-Cl E	NMH	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
1091879003	**BSB-GW-05**	ASTM D516-90,02	NMH	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		EPA 200.8	CJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		SM 4500-Cl E	NMH	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
1091879004	**BSB-GW-09**	ASTM D516-90,02	NMH	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		EPA 200.8	CJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		SM 4500-Cl E	NMH	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M

PROJECT NARRATIVE

Project:	BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.:	1091879

Method: **EPA 200.8**
Description: 200.8 MET ICPMS, Dissolved
Client: BPAR-PIONEER-MT
Date: April 10, 2009

General Information:
4 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

Method: **EPA 245.1**
Description: 245.1 Mercury, Dissolved
Client: BPAR-PIONEER-MT
Date: April 10, 2009

General Information:
4 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

Method: **EPA 120.1**
Description: 120.1 Specific Conductance
Client: BPAR-PIONEER-MT
Date: April 10, 2009

General Information:
4 samples were analyzed for EPA 120.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: BPAR-PIONEER-MT
Date: April 10, 2009

General Information:
4 samples were analyzed for SM 4500-H+B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated more than 15 minutes after sample collection.
- BSB-GW-05 (Lab ID: 1091879003)
- BSB-GW-06 (Lab ID: 1091879001)
- BSB-GW-08 (Lab ID: 1091879002)
- BSB-GW-09 (Lab ID: 1091879004)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

Method: **ASTM D516-90,02**
Description: ASTM D516-90 Sulfate Water
Client: BPAR-PIONEER-MT
Date: April 10, 2009

General Information:
4 samples were analyzed for ASTM D516-90,02. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/7849

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 1091949001,1091967006

M0: Matrix spike recovery was outside laboratory control limits.
- MS (Lab ID: 601305)
  - Sulfate
- MSD (Lab ID: 601306)
  - Sulfate

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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(612)607-1700

PROJECT NARRATIVE

Project:	BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.:	1091879

Method:	**SM 4500-Cl E**
Description:	SM4500Cl-E Chloride
Client:	BPAR-PIONEER-MT
Date:	April 10, 2009

General Information:
4 samples were analyzed for SM 4500-Cl E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/7850

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 1092001001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 601309)
  - Chloride
- MSD (Lab ID: 601310)
  - Chloride

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

CLK-2

Sample: BSB-GW-06 **Lab ID: 1091879001** Collected: 03/25/09 14:18 Received: 03/27/09 09:26 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Beryllium, Dissolved	ND	mg/L	0.00020	0.00010	1	04/03/09 10:16	04/07/09 13:54	7440-41-7	
Vanadium, Dissolved	**0.0023**	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 13:54	7440-62-2	
Chromium, Dissolved	**0.00027J**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:54	7440-47-3	
Cobalt, Dissolved	**0.00026J**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:54	7440-48-4	
Nickel, Dissolved	**0.026**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:54	7440-02-0	
Copper, Dissolved	**0.0023**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:54	7440-50-8	
Zinc, Dissolved	**0.55**	mg/L	0.12	0.062	25	04/03/09 10:16	04/10/09 12:56	7440-66-6	
Arsenic, Dissolved	**0.0010**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:54	7440-38-2	
Selenium, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:54	7782-49-2	
Silver, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:54	7440-22-4	
Cadmium, Dissolved	**0.00095**	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 13:54	7440-43-9	
Antimony, Dissolved	ND	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 13:54	7440-36-0	
Barium, Dissolved	**0.019**	mg/L	0.00030	0.00015	1	04/03/09 10:16	04/07/09 13:54	7440-39-3	
Thallium, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:54	7440-28-0	
Lead, Dissolved	**0.000060J**	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 13:54	7439-92-1	
Iron, Dissolved	ND	mg/L	0.050	0.025	1	04/03/09 10:16	04/07/09 13:54	7439-89-6	
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	ND	mg/L	0.00020	0.00010	1	04/06/09 19:16	04/07/09 12:43	7439-97-6	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**1730**	umhos/cm	1.0	0.50	1		03/30/09 15:00		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.6**	Std. Units	0.10		1		03/31/09 10:00		H6
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90,02								
Sulfate	**804**	mg/L	125	62.5	50		04/01/09 09:19	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**58.1**	mg/L	2.0	1.0	1		03/30/09 09:04	16887-00-6	

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ANALYTICAL RESULTS

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

CLK-2 Dup

Sample: BSB-GW-08 **Lab ID: 1091879002** Collected: 03/25/09 14:30 Received: 03/27/09 09:26 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Beryllium, Dissolved	ND	mg/L	0.00020	0.00010	1	04/03/09 10:16	04/07/09 13:58	7440-41-7	
Vanadium, Dissolved	**0.0023**	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 13:58	7440-62-2	
Chromium, Dissolved	**0.00028J**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:58	7440-47-3	
Cobalt, Dissolved	**0.00028J**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:58	7440-48-4	
Nickel, Dissolved	**0.026**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:58	7440-02-0	
Copper, Dissolved	**0.0023**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:58	7440-50-8	
Zinc, Dissolved	**0.55**	mg/L	0.12	0.062	25	04/03/09 10:16	04/10/09 13:00	7440-66-6	
Arsenic, Dissolved	**0.00097**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:58	7440-38-2	
Selenium, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:58	7782-49-2	
Silver, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:58	7440-22-4	
Cadmium, Dissolved	**0.00098**	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 13:58	7440-43-9	
Antimony, Dissolved	ND	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 13:58	7440-36-0	
Barium, Dissolved	**0.019**	mg/L	0.00030	0.00015	1	04/03/09 10:16	04/07/09 13:58	7440-39-3	
Thallium, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 13:58	7440-28-0	
Lead, Dissolved	**0.000054J**	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 13:58	7439-92-1	
Iron, Dissolved	ND	mg/L	0.050	0.025	1	04/03/09 10:16	04/07/09 13:58	7439-89-6	
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	ND	mg/L	0.00020	0.00010	1	04/06/09 19:16	04/07/09 12:44	7439-97-6	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**1720**	umhos/cm	1.0	0.50	1		03/30/09 15:00		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.5**	Std. Units	0.10		1		03/31/09 10:00		H6
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90,02								
Sulfate	**746**	mg/L	125	62.5	50		04/01/09 09:22	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**58.0**	mg/L	2.0	1.0	1		03/30/09 09:04	16887-00-6	

ANALYTICAL RESULTS

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

CLK-1

Sample: BSB-GW-05 **Lab ID: 1091879003** Collected: 03/25/09 15:35 Received: 03/27/09 09:26 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Beryllium, Dissolved	**0.00041**	mg/L	0.00020	0.00010	1	04/03/09 10:16	04/07/09 14:01	7440-41-7	
Vanadium, Dissolved	**0.00035**	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 14:01	7440-62-2	
Chromium, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:01	7440-47-3	
Cobalt, Dissolved	**0.058**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:01	7440-48-4	
Nickel, Dissolved	**0.047**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:01	7440-02-0	
Copper, Dissolved	**0.00074**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:01	7440-50-8	
Zinc, Dissolved	**62.7**	mg/L	2.5	1.2	500	04/03/09 10:16	04/10/09 13:46	7440-66-6	
Arsenic, Dissolved	**0.11**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:01	7440-38-2	
Selenium, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:01	7782-49-2	
Silver, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:01	7440-22-4	
Cadmium, Dissolved	**0.018**	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 14:01	7440-43-9	
Antimony, Dissolved	**0.000097J**	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 14:01	7440-36-0	
Barium, Dissolved	**0.026**	mg/L	0.00030	0.00015	1	04/03/09 10:16	04/07/09 14:01	7440-39-3	
Thallium, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:01	7440-28-0	
Lead, Dissolved	**0.000075J**	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 14:01	7439-92-1	
Iron, Dissolved	**19.2**	mg/L	0.050	0.025	1	04/03/09 10:16	04/07/09 14:01	7439-89-6	
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	ND	mg/L	0.00020	0.00010	1	04/06/09 19:16	04/07/09 12:45	7439-97-6	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**2250**	umhos/cm	1.0	0.50	1		03/30/09 15:00		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.4**	Std. Units	0.10		1		03/31/09 10:00		H6
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90,02								
Sulfate	**350**	mg/L	62.5	31.2	25		04/01/09 09:16	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**34.3**	mg/L	2.0	1.0	1		04/01/09 07:58	16887-00-6	

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ANALYTICAL RESULTS

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

Field Blank

Sample: BSB-GW-09 **Lab ID: 1091879004** Collected: 03/25/09 16:30 Received: 03/27/09 09:26 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Beryllium, Dissolved	ND	mg/L	0.00020	0.00010	1	04/03/09 10:16	04/07/09 14:05	7440-41-7	
Vanadium, Dissolved	ND	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 14:05	7440-62-2	
Chromium, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:05	7440-47-3	
Cobalt, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:05	7440-48-4	
Nickel, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:05	7440-02-0	
Copper, Dissolved	**0.00027J**	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:05	7440-50-8	
Zinc, Dissolved	**0.0084**	mg/L	0.0050	0.0025	1	04/03/09 10:16	04/09/09 17:39	7440-66-6	
Arsenic, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:05	7440-38-2	
Selenium, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:05	7782-49-2	
Silver, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:05	7440-22-4	
Cadmium, Dissolved	ND	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 14:05	7440-43-9	
Antimony, Dissolved	ND	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 14:05	7440-36-0	
Barium, Dissolved	ND	mg/L	0.00030	0.00015	1	04/03/09 10:16	04/07/09 14:05	7440-39-3	
Thallium, Dissolved	ND	mg/L	0.00050	0.00025	1	04/03/09 10:16	04/07/09 14:05	7440-28-0	
Lead, Dissolved	**0.000095J**	mg/L	0.00010	0.000050	1	04/03/09 10:16	04/07/09 14:05	7439-92-1	
Iron, Dissolved	ND	mg/L	0.050	0.025	1	04/03/09 10:16	04/07/09 14:05	7439-89-6	
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	ND	mg/L	0.00020	0.00010	1	04/06/09 19:16	04/07/09 12:47	7439-97-6	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**3.8**	umhos/cm	1.0	0.50	1		03/30/09 15:00		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**5.5**	Std. Units	0.10		1		03/31/09 10:00		H6
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90,02								
Sulfate	**1220**	mg/L	125	62.5	50		04/01/09 09:16	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**31.9**	mg/L	2.0	1.0	1		04/01/09 07:58	16887-00-6	

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QUALITY CONTROL DATA

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

QC Batch: MPRP/15168 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET Dissolved
Associated Lab Samples: 1091879001, 1091879002, 1091879003, 1091879004

METHOD BLANK: 599860 Matrix: Water
Associated Lab Samples: 1091879001, 1091879002, 1091879003, 1091879004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony, Dissolved	mg/L	ND	0.00010	04/07/09 11:11	
Arsenic, Dissolved	mg/L	ND	0.00050	04/07/09 11:11	
Barium, Dissolved	mg/L	ND	0.00030	04/07/09 11:11	
Beryllium, Dissolved	mg/L	ND	0.00020	04/07/09 11:11	
Cadmium, Dissolved	mg/L	ND	0.00010	04/07/09 11:11	
Chromium, Dissolved	mg/L	ND	0.00050	04/07/09 11:11	
Cobalt, Dissolved	mg/L	ND	0.00050	04/07/09 11:11	
Copper, Dissolved	mg/L	ND	0.00050	04/07/09 11:11	
Iron, Dissolved	mg/L	ND	0.050	04/07/09 11:11	
Lead, Dissolved	mg/L	ND	0.00010	04/07/09 11:11	
Nickel, Dissolved	mg/L	ND	0.00050	04/07/09 11:11	
Selenium, Dissolved	mg/L	ND	0.00050	04/07/09 11:11	
Silver, Dissolved	mg/L	ND	0.00050	04/07/09 11:11	
Thallium, Dissolved	mg/L	ND	0.00050	04/07/09 11:11	
Vanadium, Dissolved	mg/L	ND	0.00010	04/07/09 11:11	
Zinc, Dissolved	mg/L	ND	0.0050	04/09/09 13:34	

LABORATORY CONTROL SAMPLE: 599861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	.08	0.089	111	85-115	
Arsenic, Dissolved	mg/L	.08	0.081	101	85-115	
Barium, Dissolved	mg/L	.08	0.078	98	85-115	
Beryllium, Dissolved	mg/L	.08	0.079	99	85-115	
Cadmium, Dissolved	mg/L	.08	0.081	101	85-115	
Chromium, Dissolved	mg/L	.08	0.081	101	85-115	
Cobalt, Dissolved	mg/L	.08	0.078	98	85-115	
Copper, Dissolved	mg/L	.08	0.079	99	85-115	
Iron, Dissolved	mg/L	1	1.0	105	85-115	
Lead, Dissolved	mg/L	.08	0.078	98	85-115	
Nickel, Dissolved	mg/L	.08	0.075	94	85-115	
Selenium, Dissolved	mg/L	.16	0.16	98	85-115	
Silver, Dissolved	mg/L	.08	0.078	97	85-115	
Thallium, Dissolved	mg/L	.08	0.075	94	85-115	
Vanadium, Dissolved	mg/L	.08	0.077	96	85-115	
Zinc, Dissolved	mg/L	.08	0.079	99	85-115	

QUALITY CONTROL DATA

Project:	BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.:	1091879

MATRIX SPIKE SAMPLE: 599862

Parameter	Units	1091761001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	ND	.08	0.084	105	70-130	
Arsenic, Dissolved	mg/L	0.64 ug/L	.08	0.094	117	70-130	
Barium, Dissolved	mg/L	85.4 ug/L	.08	0.17	109	70-130	
Beryllium, Dissolved	mg/L	ND	.08	0.094	117	70-130	
Cadmium, Dissolved	mg/L	ND	.08	0.091	113	70-130	
Chromium, Dissolved	mg/L	ND	.08	0.090	112	70-130	
Cobalt, Dissolved	mg/L	0.68 ug/L	.08	0.089	110	70-130	
Copper, Dissolved	mg/L	ND	.08	0.089	111	70-130	
Iron, Dissolved	mg/L	2700 ug/L	1	3.9	117	70-130	
Lead, Dissolved	mg/L	0.10 ug/L	.08	0.090	112	70-130	
Nickel, Dissolved	mg/L	ND	.08	0.085	106	70-130	
Selenium, Dissolved	mg/L	ND	.16	0.18	114	70-130	
Silver, Dissolved	mg/L	ND	.08	0.083	104	70-130	
Thallium, Dissolved	mg/L	ND	.08	0.086	107	70-130	
Vanadium, Dissolved	mg/L	0.13 ug/L	.08	0.086	108	70-130	
Zinc, Dissolved	mg/L	ND	.08	0.081	101	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 599863 599864

Parameter	Units	1091873001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony, Dissolved	mg/L	ND	.08	.08	0.075	0.086	94	107	70-130	13	20	
Arsenic, Dissolved	mg/L	0.81 ug/L	.08	.08	0.088	0.086	110	106	70-130	3	20	
Barium, Dissolved	mg/L	133 ug/L	.08	.08	0.22	0.22	106	103	70-130	1	20	
Beryllium, Dissolved	mg/L	ND	.08	.08	0.088	0.084	109	104	70-130	5	20	
Cadmium, Dissolved	mg/L	ND	.08	.08	0.085	0.084	106	104	70-130	2	20	
Chromium, Dissolved	mg/L	ND	.08	.08	0.082	0.079	103	99	70-130	3	20	
Cobalt, Dissolved	mg/L	0.85 ug/L	.08	.08	0.084	0.082	104	101	70-130	3	20	
Copper, Dissolved	mg/L	ND	.08	.08	0.083	0.081	104	100	70-130	3	20	
Iron, Dissolved	mg/L	ND	1	1	1.1	1.1	108	105	70-130	2	20	
Lead, Dissolved	mg/L	ND	.08	.08	0.083	0.081	104	102	70-130	2	20	
Nickel, Dissolved	mg/L	ND	.08	.08	0.081	0.078	100	97	70-130	4	20	
Selenium, Dissolved	mg/L	ND	.16	.16	0.17	0.17	109	107	70-130	2	20	
Silver, Dissolved	mg/L	ND	.08	.08	0.076	0.076	95	95	70-130	.07	20	
Thallium, Dissolved	mg/L	ND	.08	.08	0.081	0.078	101	98	70-130	3	20	
Vanadium, Dissolved	mg/L	4.2 ug/L	.08	.08	0.084	0.081	100	96	70-130	4	20	
Zinc, Dissolved	mg/L	ND	.08	.08	0.077	0.081	90	95	70-130	5	20	

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QUALITY CONTROL DATA

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

QC Batch: WETA/7838
Analysis Method: SM 4500-Cl E
QC Batch Method: SM 4500-Cl E
Analysis Description: SM4500Cl-E Chloride
Associated Lab Samples: 1091879001, 1091879002

METHOD BLANK: 600194
Matrix: Water
Associated Lab Samples: 1091879001, 1091879002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	2.0	03/30/09 08:54	

LABORATORY CONTROL SAMPLE: 600195

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	30	32.4	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 600196 600197

Parameter	Units	1091619001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.5	30	30	40.2	40.2	106	106	80-120	.04	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 600198 600199

Parameter	Units	1091815006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	30.1	30	30	56.9	57.1	89	90	80-120	.4	30	

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QUALITY CONTROL DATA

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

QC Batch: WET/15646
Analysis Method: EPA 120.1
QC Batch Method: EPA 120.1
Analysis Description: 120.1 Specific Conductance
Associated Lab Samples: 1091879001, 1091879002, 1091879003, 1091879004

METHOD BLANK: 600214
Matrix: Water
Associated Lab Samples: 1091879001, 1091879002, 1091879003, 1091879004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	0.75J	1.0	03/30/09 15:00	

LABORATORY CONTROL SAMPLE: 600215

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	988	99	90-110	

SAMPLE DUPLICATE: 600216

Parameter	Units	1091815001 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	2410	2450	2	20	

SAMPLE DUPLICATE: 600217

Parameter	Units	1091815014 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	808	814	.7	20	

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QUALITY CONTROL DATA

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

QC Batch: WET/15650 Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH
Associated Lab Samples: 1091879001, 1091879002, 1091879003, 1091879004

LABORATORY CONTROL SAMPLE: 600738

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	5	5.0	100	98-102	H6

SAMPLE DUPLICATE: 600736

Parameter	Units	1091925001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.0	1	3	H6

SAMPLE DUPLICATE: 600737

Parameter	Units	1091830001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.9	6.9	0	3	H6

QUALITY CONTROL DATA

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

QC Batch: WETA/7849
Analysis Method: ASTM D516-90,02
QC Batch Method: ASTM D516-90,02
Analysis Description: ASTM D516-9002 Sulfate Water
Associated Lab Samples: 1091879001, 1091879002, 1091879003, 1091879004

METHOD BLANK: 601301
Matrix: Water
Associated Lab Samples: 1091879001, 1091879002, 1091879003, 1091879004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.5	04/01/09 08:24	

LABORATORY CONTROL SAMPLE: 601302

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7.5	7.4	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 601303 601304

Parameter	Units	1091967006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	ND	20	20	19.8	20.0	99	100	80-120	1	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 601305 601306

Parameter	Units	1091949001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	ND	20	20	28.1	28.1	140	139	80-120	.2	30	M0

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QUALITY CONTROL DATA

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

QC Batch: WETA/7850
Analysis Method: SM 4500-Cl E
QC Batch Method: SM 4500-Cl E
Analysis Description: SM4500Cl-E Chloride
Associated Lab Samples: 1091879003, 1091879004

METHOD BLANK: 601307
Matrix: Water
Associated Lab Samples: 1091879003, 1091879004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	2.0	04/01/09 07:58	

LABORATORY CONTROL SAMPLE: 601308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	30	31.8	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 601309 601310

Parameter	Units	1092001001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	519	30	30	532	539	42	65	80-120	1	30	P6

QUALITY CONTROL DATA

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

QC Batch: MERP/3329
Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1
Analysis Description: 245.1 Mercury - Dissolved
Associated Lab Samples: 1091879001, 1091879002, 1091879003, 1091879004

METHOD BLANK: 603766
Matrix: Water
Associated Lab Samples: 1091879001, 1091879002, 1091879003, 1091879004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	ND	0.00020	04/07/09 12:40	

LABORATORY CONTROL SAMPLE: 603767

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	.005	0.0053	106	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 603768 603769

Parameter	Units	1091879004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	mg/L	ND	.005	.005	0.0054	0.0054	108	107	85-115	.8	20	

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QUALIFIERS

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

H6	Analysis initiated more than 15 minutes after sample collection.
M0	Matrix spike recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BP-PIONEER OLD LANDFILL/CLARK
Pace Project No.: 1091879

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1091879001	**BSB-GW-06**	EPA 200.8	MPRP/15168	EPA 200.8	ICPM/6144
1091879002	**BSB-GW-08**	EPA 200.8	MPRP/15168	EPA 200.8	ICPM/6144
1091879003	**BSB-GW-05**	EPA 200.8	MPRP/15168	EPA 200.8	ICPM/6144
1091879004	**BSB-GW-09**	EPA 200.8	MPRP/15168	EPA 200.8	ICPM/6144
1091879001	**BSB-GW-06**	SM 4500-Cl E	WETA/7838		
1091879002	**BSB-GW-08**	SM 4500-Cl E	WETA/7838		
1091879001	**BSB-GW-06**	EPA 120.1	WET/15646		
1091879002	**BSB-GW-08**	EPA 120.1	WET/15646		
1091879003	**BSB-GW-05**	EPA 120.1	WET/15646		
1091879004	**BSB-GW-09**	EPA 120.1	WET/15646		
1091879001	**BSB-GW-06**	SM 4500-H+B	WET/15650		
1091879002	**BSB-GW-08**	SM 4500-H+B	WET/15650		
1091879003	**BSB-GW-05**	SM 4500-H+B	WET/15650		
1091879004	**BSB-GW-09**	SM 4500-H+B	WET/15650		
1091879001	**BSB-GW-06**	ASTM D516-90,02	WETA/7849		
1091879002	**BSB-GW-08**	ASTM D516-90,02	WETA/7849		
1091879003	**BSB-GW-05**	ASTM D516-90,02	WETA/7849		
1091879004	**BSB-GW-09**	ASTM D516-90,02	WETA/7849		
1091879003	**BSB-GW-05**	SM 4500-Cl E	WETA/7850		
1091879004	**BSB-GW-09**	SM 4500-Cl E	WETA/7850		
1091879001	**BSB-GW-06**	EPA 245.1	MERP/3329	EPA 245.1	MERC/4173
1091879002	**BSB-GW-08**	EPA 245.1	MERP/3329	EPA 245.1	MERC/4173
1091879003	**BSB-GW-05**	EPA 245.1	MERP/3329	EPA 245.1	MERC/4173
1091879004	**BSB-GW-09**	EPA 245.1	MERP/3329	EPA 245.1	MERC/4173

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Minnesota Laboratory

H2SO4: 083890
HCL: N/A
HNO3: 1108110
Digestion Tube Lot #: A811LS095

Potassium Persulfate: 7432-463
Potassium Permanganate: 7432-574
Stannous Chloride: 7432-572
Hydroxylamine Hydrochloride: 7432-573

Analyst	Sample ID	Average	Client	Absorbance	Prep. Date	QC Batch	Initial Wt./Vol (g or ml)	Final Vol. (ml)	Project No.	Comments
					4/6/2009					
YT1	603766		Quality Control		4/6/2009	3329	30	30		/
YT1	603767		Quality Control		4/6/2009	3329	30	30		/
YT1	1091879001		BPAR-PIONEER-MT		4/6/2009	3329	30	30	1091879	/
YT1	1091879002		BPAR-PIONEER-MT		4/6/2009	3329	30	30	1091879	/
YT1	1091879003		BPAR-PIONEER-MT		4/6/2009	3329	30	30	1091879	/
YT1	1091879004		BPAR-PIONEER-MT		4/6/2009	3329	30	30	1091879	/
YT1	603768		Quality Control		4/6/2009	3329	30	30		/
YT1	603769		Quality Control		4/6/2009	3329	30	30		/
	0.0 ppb		Cal Blk				0	30		
	0.2 ppb		Cal 1				0.06	30		
	0.5 ppb		Cal 2				0.15	30		
	1.0 ppb		Cal 3				0.30	30		
	5.0 ppb		Cal 4				1.5	30		
	10 ppb		Cal 5				3.0	30		
	1.0 ppb		ICV/CCV 1				1.0	30		
	1.0 ppb		ICB/CCB 1				0.0	30		
	0.0 ppb		ICV/CCV 2				1.0	30		
	0.0 ppb		ICB/CCB 2				0.0	30		

SO

OYT 4/6/09

Form I177Rev.00, 24Apr2007

Peer Review ____________

Atlantic Richfield Company
bp
A BP affiliated company

Chain of Custody Record

164575 1147

Project Name: Old Landfill / Clark Tailings
BP BU/AR Region/Enfos Segment:
State or Lead Regulatory Agency: MDEQ / EPA
Requested Due Date (mm/dd/yy):

On-site Time: Temp:
Off-site Time: Temp:
Sky Conditions:
Meteorological Events:
Wind Speed: Direction:
See Logbook
Field Sheets

Lab Name: Pace Analytical Services
Address: 1700 Elm St
Minneapolis, Mn 55414
Lab PM: Julie Thieschafer
Tele/Fax: 617-607-6363
BP/AR EBM: Shannon Dunlap
Address:
Tele/Fax: 406-782-9964

BP/AR Facility No.:
BP/AR Facility Address:
Site Lat/Long:
California Global ID No.:
Enfos Project No.: 000CC-0001
Provision or OOC (circle one)
Phase/WBS:
Sub Phase/Task:
Cost Element:

Consultant/Contractor: Pioneer Technical
Address: 63 1/2 W. Broadway
Butte, Mt. 59701
Consultant/Contractor Project No.: 13034 047005
Consultant/Contractor PM: Shawn Bisch
Tele/Fax: 406-563-9371
Report Type & QC Level: Mod CLP
E-mail EDD To: bhollamon@pioneer-technical
Invoice to: Consultant or BP or [✓ Atlantic Richfield Co.] (circle one)

Lab Bottle Order No:

Item No.	Sample Description	Time	Date	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Air		Laboratory No.	No. of Containers	Preservative: Unpreserved	Preservative: H_2SO_4	Preservative: HNO_3 / Filtered	Preservative: HCl	Preservative: Methanol		Requested Analysis: pH, SC, Cl, SO_4	Requested Analysis: dissolved Metals	Requested Analysis	Sample Point Lat/Long and Comments
1	BSB-GW-06	1418	3/25/09		X				2	X		X				X	X	10918729001	Will e-mail
2	BSB-GW-08	1430	↓		X				2	X		X				X	X	002	dissolved list
3	BSB-GW-05	1535			X				2	X		X				X	X	003	
4	BSB-GW-09	1630			X				2	X		X				X	X	004	
5																			
6																			
7																			
8																			
9																			
10																			

Sampler's Name: Brad Hollamon
Sampler's Company: Pioneer Technical
Shipment Date: 3/26/09
Shipment Method: Fed Ex
Shipment Tracking No: 8664 9250 7900

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Brad Hollamon / PTS	3/26/09	1200	/ pace	3/27	0926

Special Instructions:

Custody Seals In Place: [✓ Yes] / No | Temp Blank: Yes / [✓ No] | Cooler Temp on Receipt: 2.8 °F/[✓ C] | Trip Blank: Yes / [✓ No] | MS/MSD Sample Submitted: Yes / [✓ No]

Laboratory

BP COC Rev. 5 10/11/2006

Sample Condition Upon Receipt

Pace Analytical

Client Name: BP-Pioneer   Project # 1091879

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other ______

Tracking #: 8664 9250 7900

Custody Seal on Cooler/Box Present: ☒ yes ☐ no   Seals intact: ☒ yes ☐ no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other ______ Temp Blank: Yes ______ No X

Thermometer Used [✓ 179425], 80344042   **Type of Ice:** [✓ Wet] Blue None   ☐ Samples on ice, cooling process has begun

Cooler Temperature 2.8°C   **Biological Tissue is Frozen:** Yes No

Temp should be above freezing ≤ 6°C

Date and Initials of person examining contents: 3/27/09

Comments:

Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume: triple volume provided for MS/MSD	☐Yes ☐No ☒N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☐Yes ☒No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10. 32709
Filtered volume received for Dissolved tests	☒Yes ☐No ~~☒N/A~~	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	☒Yes ☐No ☐N/A	12.
All containers needing acid/base preservation have been checked.	☒Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☒Yes ☐No ☐N/A	
Per method, VOA pH is checked after analysis		Initial when completed ______ Lot # of added preservative ______
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
3 Trip Blanks Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased):______		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: ______________ Date/Time: ______________

Comments/ Resolution:

Temp Log: Temp must be maintained at <6 C during login, record temp every 20 mins
Opened Time: 1113 Temp: 2.8C
Time: 1116 Put in cooler:
Time: Temp:

Project Manager Review: ______________   **Date:** 3/27/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Form I210Rev.02, 05August2008

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT- Provide as much information as possible.

Company Name: Pioneer Technical Services

Project Name, PWS, Permit, Etc. Old Landfill

Sample Origin State: Mt

EPA/State Compliance: Yes ☒ No ☐

Report Mail Address: 63 1/2 W. Broadway
Butte Mt. 59701

Contact Name: Brad Hollamon Phone/Fax: 406-490-7678

Email:

Sampler: (Please Print) Brad Hollamon

Invoice Address: BSB Public Works
126 W. Granite
Butte, Mt. 59701

Invoice Contact & Phone: Gary Keeler 406-497-651

Purchase Order:

Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

☐ DW
☐ GSA
☐ POTW/WWTP
☐ State: ____________
☐ Other: ____________
☐ A2LA
☐ EDD/EDT(Electronic Data)
Format: ____________
☐ LEVEL IV
☐ NELAC

R U S H Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments: DM - Sb, As, Ba, Be, Cd, Cr, Cu, Co, Fe, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

Shipped by:

Cooler ID(s):

Receipt Temp ______ °C

On Ice: Yes No

Custody Seal Y N
Intact Y N
Signature Match Y N

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	Number of Containers Sample Type: A W S V B O Air Water Soils/Solids Vegetation Bioassay Other MATRIX	SC, pH, Cl, SO4, T	CN-	NO2/NO3, COD	Sulfide	8151	8081A	608	8270 Semi Vol	8260	~~SEE ATTACHED~~ Dis Metals	Normal Turnaround (TAT)	RUSH	LABORATORY USE ONLY
1	BSB-GW-01	3/24/09	13, W	1220	X	X	X	X	X	X	X	X	X	X			
2	BSB-GW-02	↓	12, W	1450	X	X	X	X	X	X	X	X	X				
3	BSB-GW-03	↓	12, W	1510	X	X	X	X	X	X	X	X	X				
4	BSB-GW-04	3/25/09	12, W	1140	X	X	X	X	X	X	X	X	X				
5	BSB-GW-07	↓	3, W	1200									X				
6																	
7																	
8																	
9																	
10																	

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Brad Hollamon	3/25/09, 1310	Brad Hollamon			
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time:	Signature:

Sample Disposal: Return to Client: ____________ Lab Disposal: X

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.
This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.
Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Atlantic Richfield Company
bp
A BP affiliated company

Chain of Custody Record 164575

Page 1 of 1.

Project Name: Old Landfill / Clark Tailings
BP BU/AR Region/Enfos Segment:
State or Lead Regulatory Agency: MDEQ / EPA
Requested Due Date (mm/dd/yy):

On-site Time: Temp: See Log book
Off-site Time: Temp:
Sky Conditions: See Field Sheets
Meteorological Events:
Wind Speed: Direction:

Lab Name: Pace Analytical Services
Address: 1700 Elm St
Minneapolis, MN 55414
Lab PM: Julie Thieschafer
Tele/Fax: 617-607-6363
BP/AR EBM: Shannon Dunlap
Address:
Tele/Fax: 406-782-9964

BP/AR Facility No.:
BP/AR Facility Address:
Site Lat/Long:
California Global ID No.:
Enfos Project No.: 000CC-0001
Provision or OOC (circle one)
Phase/WBS:
Sub Phase/Task:
Cost Element:

Consultant/Contractor: Pioneer Technical
Address: 63½ W. Broadway
Butte, MT. 59701
Consultant/Contractor Project No.: 13034 / 047005
Consultant/Contractor PM: Shawn Risch
Tele/Fax: 406-563-9371
Report Type & QC Level: Mod CLP
E-mail EDD To: bhollamon@pioneer-technical
Invoice to: Consultant or BP or [✓ Atlantic Richfield Co.] (circle one)

Lab Bottle Order No:

Item No.	Sample Description	Time	Date	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Air	Matrix:	Laboratory No.	No. of Containers	Preservative: Unpreserved	Preservative: H_2SO_4	Preservative: HNO_3/Filtered	Preservative: HCl	Preservative: Methanol	Preservative:	Requested Analysis: dissolved CN	Requested Analysis: dissolved Metals	Requested Analysis:	Requested Analysis:	Requested Analysis:	Requested Analysis:	Requested Analysis:	Requested Analysis:	Requested Analysis:	Requested Analysis:	Sample Point Lat/Long and Comments
1	BSB-GW-06	1418	3/25/09		X				2	X		X				X	X									Will e-mail
2	BSB-GW-08	1430	↓		X				2	X		X				X	X									dissolved list
3	BSB-GW-05	1535	↓		X				2	X		X				X	X									
4	BSB-GW-09	1630	↓		X				2	X		X				X	X									
5																										
6																										
7																										
8																										
9																										
10																										

Sampler's Name: Brad Hallamon
Sampler's Company: Pioneer Technical
Shipment Date: 3/26/09
Shipment Method: FedEx
Shipment Tracking No: 8664 9350 7900

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Brad Hallamon / PTS	3/26/09	1200			

Special Instructions:

Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: ____ °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

ENERGY LABORATORIES

ENERGY LABORATORIES, INC. 1120 S 27th St PO Box 30916 Billings, MT 59107-0916
*Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * eli@energylab.com*

BOTTLE ORDER 32330

SHIPPED TO: **Pioneer Technical Services**

Contact: Brad Hollamon
63 1/2 W Broadway
Butte MT 59701
Phone: 4067825177

Order Created by: Shari Endy

Ship Date: 3/10/2009
VIA: Ground

Bottle Type Required	Test(s)	Per Samp	Qty
500 mL Plastic, Non-filtered, Unpreserved	Conductivity Anions by ion chromatography pH	1	5
500 mL Plastic, Non-filtered, NaOH (Green)to pH >12	Cyanide, Total Manual Distillation	1	5
250 mL Plastic, Non-filtered, H2SO4(Yellow) to pH <2	Nitrogen, Nitrate + Nitrite Chemical Oxygen Demand	1	5
250 mL Plastic, Non-filtered, NaOH-ZnOAC(Green&Purple)	Sulfide, Iodine Titrimetric	1	5
1 Liter Amber Glass, Narrow Mouth, Unpreserved	8151-Herbicides, Chlorinated	1	5
1 Liter Amber Glass, Narrow Mouth, Unpreserved	8081A-Organochlorine Pesticides	1	5
1 Liter Amber Glass, Narrow Mouth, Unpreserved	608-Organochlorine Pesticides and PCBs	1	5
1 Liter Amber Glass, Narrow Mouth, Unpreserved	Semi-Volatile Organic Compounds	2	10
40 mL Clear Glass, VOA Vial, HCL (Blue)to pH <2	8260-Volatile Organic Compounds-Short List	3	15

Comments:

The following is a list of preservatives. The color-coded vial caps correspond to the color-coded sample container or label.

Nitric (HNO3) Acid = Red-capped Vial
Phosphoric (H3PO4) Acid = White-capped Vial
Sodium Hydroxide (NaOH) =Green-capped Vial
Fill 40 ml VOA vials completely full with no headspace.

Sulfuric (H2SO4) Acid = Yellow-capped Vial
Zinc Acetate (ZnOAc) = Purple-capped Vial
Hydrochloric (HCl) Acid = Blue-capped Vial

Material Safety Data Sheets(MSDS) Available @ EnergyLab.com ->Services -> MSDS Sheets

Corrosive Chemicals: Nitric, Sulfuric, Phosphoric, Hydrochloric Acids and Sodium Hydroxide. Zinc Acetate is a skin irritant.

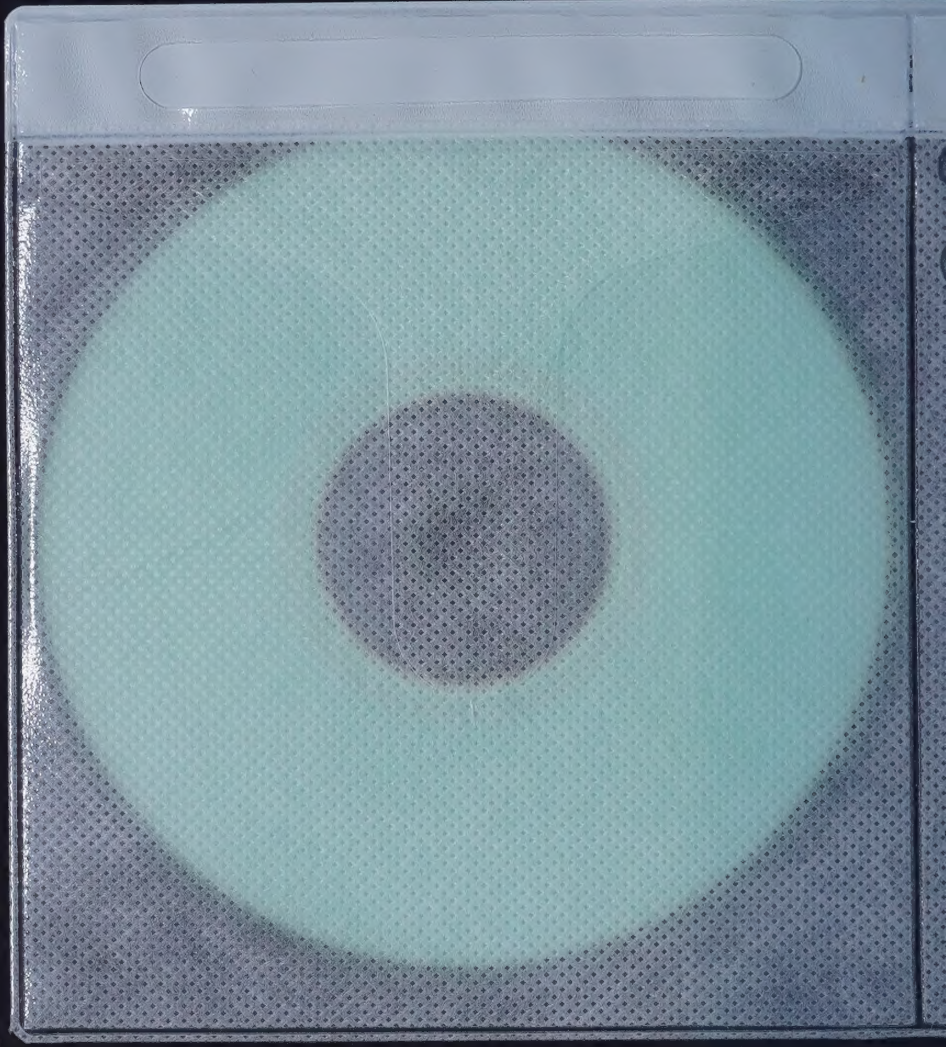
Subcontracting of sample analyses to an outside laboratory may be required. If so, Energy Laboratories will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

Butte-Silver Bow County

June 2009

PIONEER
TECHNICAL SERVICES, INC.

Old Butte-Silver Bow County
Landfill/Clark Tailings



Closed

County Silver Bow
Facility & # Butte-Silver Bow #20
Closure
Finan Assur
GW Corr Meas
[✓ GW Monitoring]
GW Reports
Inspections
Other: ____________

Landfarm
Liner
Methane
O & M
Run-on

PIONEER
TECHNICAL SERVICES, INC.

January 20, 2010

Martin Van Oort
DEQ/Solid Waste Program
P.O Box 200901
Helena, MT 59620-0901

Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau

RE: Old Butte-Silver Bow County Landfill/Clark Tailings

Dear Martin:

Enclosed please find results from the Old Butte-Silver Bow County Landfill/Clark Tailings October 2009 semi-annual groundwater monitoring event. The following have been included for your information:

- October 2009 sampling summary;
- Table oldlfctoct09 (non-parametric comparison of wells);
- Groundwater field parameters collected in the field;
- Copy of field notes;
- Trend graphs of detected compounds;
- Groundwater potentiometric surface map for October 2009; and
- Analytical data from Pace Labs in Minneapolis, Minnesota.

The groundwater velocity was calculated using Darcy's Law and the equation for the seepage velocity. The average groundwater velocity for October 2009 sampling event was 0.47 ft/day. The hydraulic conductivity value used to obtain the GW velocity was obtained from the Corrective Measures Assessment report (Pioneer Technical Services, April 2009) and from pumping data from the March 2009 sampling.

Voluntary methane monitoring of the interior of the site buildings, vents and monitoring wells was also completed during the October 2009 sampling event and was sent to MDEQ in a separate report.

Sincerely,

Brad Hallam

Brad Hollamon
Senior Technician

Encl.

cc. Gary Keeler, BSB Landfill Manager
Shawn Bisch, Pioneer Technical Services Inc.

HELENA
201 East Broadway, Suite C
Helena, MT 59601
Phone (406) 457-8252
Fax (406) 442-1158

BUTTE
63 1/2 West Broadway
Butte, MT 59701
Phone (406) 782-5177
Fax (406) 782-5866

ANACONDA
307 East Park Street, Suite 421
Anaconda, MT 59711
Phone (406) 563-9371
Fax (406) 563-9372

100% post-consumer paper & 100% vegetable-based inks

PIONEER
TECHNICAL SERVICES, INC.

P.O Box 3445, Butte, MT 59702
www.pioneer-technical.com

January 20, 2010

RECEIVED
JAN 2 5 2010
Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau

Martin Van Oort
DEQ/Solid Waste Program
P.O Box 200901
Helena, MT 59620-0901

RE: Old Butte-Silver Bow County Landfill/Clark Tailings

Dear Martin:

Enclosed please find results from the Old Butte-Silver Bow County Landfill/Clark Tailings October 2009 semi-annual groundwater monitoring event. The following have been included for your information:

- October 2009 sampling summary;
- Table oldlfctoct09 (non-parametric comparison of wells);
- Groundwater field parameters collected in the field;
- Copy of field notes;
- Trend graphs of detected compounds;
- Groundwater potentiometric surface map for October 2009; and
- Analytical data from Pace Labs in Minneapolis, Minnesota.

The groundwater velocity was calculated using Darcy's Law and the equation for the seepage velocity. The average groundwater velocity for October 2009 sampling event was 0.47 ft/day. The hydraulic conductivity value used to obtain the GW velocity was obtained from the Corrective Measures Assessment report (Pioneer Technical Services, April 2009) and from pumping data from the March 2009 sampling.

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Sincerely,

Brad Hollamon

Brad Hollamon
Senior Technician

Encl.

cc. Gary Keeler, BSB Landfill Manager
Shawn Bisch, Pioneer Technical Services Inc.

RECEIVED

JAN 2 5 2010

Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau

OLD SILVER BOW LANDFILL
OCTOBER 2009 GROUNDWATER MONITORING

The October 2009 round of sampling at the Old Silver Bow Landfill included sampling for the full Table 2 list of analytics in accordance with the Assessment Monitoring program. Table 1, attached, summarizes the analytical results. The discussion below compares these data to previous results and to current Maximum Contaminant Levels (MCLs) and Montana Human Health Standards (HHSs).

Well MBMG-2 (up gradient):

No semi-volatiles, volatile, chlorinated acids, or pesticides were detected in the well during this sampling event. Metals detected below the maximum background concentrations are; As (.0014 mg/L), Ba (0.144 mg/L), Cu (0.0012 mg/L), V (0.0067 mg/l), and Zn (.005 mg/L). There were no metals detected above the maximum background concentrations during this sampling event. Nitrate/nitrite (6.70 mg/L), Chloride (60 mg/l), and Sulfate (175 mg/L) were detected at concentrations below the maximum background.

No MCL or HHS exceedences were observed in this well during this sampling event.

Well BSB-A1 (North):

No semi-volatile, volatile, chlorinated acids, or pesticides were detected in the well during this sampling event. In accordance with the modified assessment-monitoring program, a sample for metals analyses was not collected from this well.

There were no inorganic compounds detected at levels above maximum baseline or above maximum background in this well during this sampling event.

No MCL or HHS exceedences were observed in this well during this sampling event.

Well BSB-A5 (Northeast Well):

In accordance with the modified assessment-monitoring program, a sample for metals analyses was not collected from this well. No semi-volatiles, chlorinated acids, or pesticides were detected in the well during this sampling event. Two volatile organic compounds were detected in this well during this sampling event, Tetrachloroethene (Pace 0.44 J µg/L) and cis-1,2-Dichloroethene (Pace 1.1 µg/L), both exceed maximum background concentrations.

Sulfate detected at 560 mg/L exceeds maximum background concentration.

Sulfate also exceeds the secondary USEPA MCL of 250 mg/L.

Well BSB-A6-R (Central Well):

Well BSB-A6-R is the replacement well for BSB-A6, removed during the construction of Timber Butte Youth Park. Eight volatile organic compounds (VOC's) were detected in this well; three of the eight were detected at levels below the quantification limit. The eight volatile organic compounds were as follows:

- Benzene (0.83 J ug/L); exceeds both maximum baseline and maximum background.
- 1,4 – Dichlorobenzene (2.9 ug/L); exceeds both maximum baseline and maximum background.
- Dichlorodifluoromethane (2.0 ug/L); exceeds maximum background.
- 1,1-DCA (1.9 ug/L); exceeds maximum background.
- Cis-1,2-DCE (7.9 ug/L); exceeds maximum background.
- 1,2-Dichloropropane (0.64 J ug/L); exceeds maximum background.
- Trichloroethene (0.60 J ug/L); exceeds maximum background.
- Vinyl Chloride (7.8 ug/L). Exceeds both maximum baseline and maximum background.

Vinyl Chloride exceeds the MDEQ-7 HHS standard of 0.2 ug/L.
No other semi-volatiles or chlorinated acids were detected. One pesticide compound was detected 2,4-D at 1.1 ug/L
In accordance with the modified assessment-monitoring program, a sample for metals analyses was not collected from this well.
Sulfate (1640 mg/L) and COD (353 mg/L), both exceed maximum background concentrations. Sulfate exceeds the secondary USEPA MCL of 250 mg/L.

Well CLK-1 (Clark Tailings East Well):

In accordance with the modified assessment-monitoring program, no samples for organic analyses were collected from this well. Metals detected above both maximum background and maximum baseline are; arsenic (0.170 mg/L), cadmium (0.022 mg/L). Metals detected above maximum background but below maximum baseline are; colbalt (0.053 mg/L), iron (20.6 mg/L), nickel (0.041 mg/L) and zinc (84.0 mg/L). Arsenic, cadmium, iron and zinc exceed US EPA MCL or Montana HHS standards.
Sulfate was detected at a concentration of 1090 mg/L, which exceeds the maximum background and the secondary MCL for this compound.

Well CLK-2 (Clark Tailings North Well):

In accordance with the modified assessment-monitoring program, no samples for organic analyses were collected from this well. Metals detected above maximum background but below maximum baseline are; nickel (0.025 mg/L) and zinc (0. 51 0 mg/L). Concentrations for both of these metals are well below MCLs, secondary MCLs, or Montana HHS concentrations for these metals.
Sulfate was detected at a concentration of 786 mg/L, which exceeds the maximum background and the secondary MCL for this compound.

Conclusion:

The October 2009 sampling event at the Old Butte-Silver Bow Landfill included sampling according to the modified assessment-monitoring program (see Table 2 for analytical data). The results for metals, inorganics, and organic contaminants obtained from this sampling event were comparable to previous results.

WELL	GROUP	DATE (M/YY)	Sulfate mg/L	Chloride mg/L	Spec.Cond. umhos/cm	pH SU	Nitrate mg/L	Nitrate FLAG	Cyanide mg/L	Cyanide FLAG	COD mg/L	COD FLAG	Sb mg/L	Sb FLAG	As mg/L	As FLAG	Ba mg/L	Ba FLAG	Be mg/L	Be FLAG
UPGRADIENT/BACKGROUND WELLS:																				
MBMG-2	BKGD	Feb-94	134	64	742		5.5		0.005	U	2.5		0.00105		0.002		0.133		0.0008	
MBMG-2	BKGD	Aug-94					0				0		0		0		0		0	
MBMG-2	BKGD	Jan-95	136	57	676		4.88				25		0.004		0.002		0.142		0.0008	
MBMG-2	BKGD	Feb-95	123	57	700		3.99				48		0.009		0.003		0.136		0.0008	
MBMG-2	BKGD	Mar-95	136	61	701		5.17				80		0.004		0.0006		0.132		0.002	
MBMG-2	BKGD	Aug-95	120	57	675		6.25		0.005	U	244		0.00105		0.01		0.117		0.0002	
MBMG-2	BKGD	Feb-96	147	56	753		7.23				94		0.00105		0.001		0.138		0.00005	
MBMG-2	BKGD	Mar-97	148	53	440		8.76		0.005	U	4		0.00105		0.003		0.141		0.0001	
MBMG-2	BKGD	Sep-97	187	56	847		5.83		0.005	U	11		0.00105		0.004		0.15		0.00005	
MBMG-2	BKGD	Apr-98	117	58	784		13.4		0.006		42		0.00105		0.002		0.132		0.00005	
MBMG-2	BKGD	Oct-98	140	54	815		7.75				27		0.00105		0.004		0.145		0.00005	
MBMG-2	BKGD	Jun-99	167	61	848		9.85		0.005	U	23		0.00105		0.004		0.158		0.001	
MBMG-2	BKGD	Dec-99	151	62	852		10.5		0.005	U	14		0.00105		0.002		0.155		0.00005	
MBMG-2	BKGD	Jun-00	162	69	856		11.8		0.005	U	42		0.00105		0.0006		0.15		0.00005	
MBMG-2	BKGD	Dec-00	143	58	788		7.7		0.005	U	133		0.003		0.0006		0.13		0.0001	
MBMG-2	BKGD	Jun-01	122	39	703	7	6.1		0.005	U	9.0		0.00105		0.0011		0.118		0.00005	
MBMG-2	BKGD	Oct-01	136	52	747	7.1	6.4		0.005	U	11.0		0.002		0.001		0.13		0.00005	
MBMG-2	BKGD	Mar-02	146	59	859	7.6	8.59		0.005	U	121.0		0.00105		0.0006		0.173		0.00005	
MBMG-2	BKGD	Sep-02	148	58	801	7.9	9.15		0.005	U	16.5		0.0034		0.0026		0.143		0.00005	
MBMG-2	BKGD	Apr-03	158	57	823	7.1	8.3		0.005	U	16.0		0.0009		0.0018		0.139		0.00005	
MBMG-2	BKGD	Sep-03	201	70	921	7.3	8.92		0.005	U	5.8		0.0011		0.0026		0.179		0.00005	
MBMG-2	BKGD	Mar-04	135	55	739	7.0	6.8		0.005	U	55.0		0.00025		0.0024		0.124		0.00005	
MBMG-2	BKGD	Sep-04	137	57	749	7.2	5.6		0.005	U	10.7		0.00025		0.0015		0.132		0.00005	
MBMG-2	BKGD	Mar-05	212	60	727	7.0	6.7		0.005	U	3.8		0.00025		0.0017		0.123		0.00005	
MBMG-2	BKGD	Sep-05	247	64	796	6.8	4.3		0.005	U	7.4		0.00025		0.0016		0.138		0.00005	
MBMG-2	BKGD	Mar-06	144	46	763	6.9	6.61		0.005	U	6.4		0.00051		0.0017		0.137		0.00005	
MBMG-2	BKGD	Sep-06	148	55	773	7.1	3.39		0.005	U	5.0		0.00025		0.0018		0.138		0.00005	
MBMG-2	BKGD	Mar-07	129	50	727	6.7	5.49		0.005	U	5.0		0.00025		0.0014		0.126		0.00005	
MBMG-2	BKGD	Sep-07	144	56	806	7.2	4.42		0.005	U	7.7		0.00025		0.00156		0.136		0.00005	
MBMG-2	BKGD	Mar-08	138	53	736	7.0	5.05		0.005	U	39.9		0.00025		0.00146		0.122		0.00005	
MBMG-2	BKGD	Sep-08	149	56	786	7.0	4.21		0.005	U	8.0		0.00025		0.0025		0.01		0.00005	
MBMG-2	BKGD	Mar-09	149	42	755	7.2	6.52		0.005	U	6.0		0.005		0.005		0.1		0.001	
MBMG-2	BKGD	Oct-09	175	60	863	7.0	6.70		0.005	U	25.0	U	0.0005	U	0.0014		0.14		0.0002	U
Maximum Conc.	MBMG-2		247	70	921	7.9	13.4		0.006		244		0.009		0.010		0.179		0.002	
MAXIMUM BACKGROUND CONC.			**247**	**70**	**921**	**7.9**	**13.4**		**0.006**		**244**		**0.009**		**0.01**		**0.179**		**0.002**	
DOWNGRADIENT WELLS:																				
BSB-A1	BASELINE	Feb-94	148	20	591		0.025		0.005	U	33		0.00105		0.004		0.122		0.0008	
BSB-A1	BASELINE	Aug-94	176	17	654		0.61		0.005	U	44		0.00105		0.0006		0.122		0.0008	
BSB-A1	BASELINE	Jan-95	100	15	450		0.46				47		0.006		0.002		0.081		0.0008	
BSB-A1	BASELINE	Feb-95	85	14	418		0.68				28		0.007		0.003		0.081		0.0008	
BSB-A1	BASELINE	Mar-95	84	15	426		0.64				131		0.00105		0.0006		0.072		0.0002	
BSB-A1	BASELINE	Aug-95	103	15	473		0.63		0.005	U	138		0.002		0.002		0.076		0.0003	
BSB-A1	BASELINE	Feb-96	88	16	466		0.56													

WELL	GROUP	DATE (M/YY)	Sulfate mg/L	Chloride mg/L	Spec.Cond. umhos/cm	pH SU	Nitrate mg/L	Nitrate FLAG	Cyanide mg/L	Cyanide FLAG	COD mg/L	COD FLAG	Sb mg/L	Sb FLAG	As mg/L	As FLAG	Ba mg/L	Ba FLAG	Be mg/L	Be FLAG	Cd mg/L	Cd FLAG	Cr mg/L	Cr FLAG	Co mg/L	Co FLAG	Cu mg/L	Cu FLAG	Fe mg/L	Fe FLAG	Pb mg/L	Pb FLAG	Hg mg/L	Hg FLAG	Ni mg/L	Ni FLAG	Se mg/L	Se FLAG	Ag mg/L	Ag FLAG	Tl mg/L	Tl FLAG	V mg/L	V FLAG	Zn mg/L	Zn FLAG	Benzene µg/L
UPGRADIENT/BACKGROUND WELLS:																																															
MBMG-2	BKGD	Feb-94	134	64	742		5.5		0.005	U	2.5		0.00105		0.002		0.133		0.0008		0.0003		0.004		0.00425		0.00165		0.009		0.000455		0.0000485		0.0071		0.001		0.000105		0.00057		0.012		0.00475		0.025
MBMG-2	BKGD	Aug-94					0				0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		
MBMG-2	BKGD	Jan-95	136	57	676		4.88				25		0.004		0.002		0.142		0.0008		0.000027		0.009		0.00425		0.00165		0.015		0.000455		0.0000485		0.0071		0.00041		0.000105		0.006		0.01		0.00475		0.025
MBMG-2	BKGD	Feb-95	123	57	700		3.99				48		0.009		0.003		0.136		0.0008		0.000027		0.004		0.00425		0.00165		0.055		0.000455		0.0000485		0.0071		0.00041		0.000105		0.006		0.006		0.03		0.025
MBMG-2	BKGD	Mar-95	136	61	701		5.17				80		0.004		0.0006		0.132		0.002		0.0004		0.004		0.00425		0.008		0.222		0.000455		0.0002		0.0071		0.00041		0.000105		0.005		0.013		0.02		0.025
MBMG-2	BKGD	Aug-95	120	57	675		6.25		0.005	U	244		0.00105		0.01		0.117		0.0002		0.0002		0.004		0.00425		0.00165		0.119		0.002		0.0000485		0.0071		0.00041		0.000105		0.007		0.008		0.00475		0.025
MBMG-2	BKGD	Feb-96	147	56	753		7.23				94		0.00105		0.001		0.138		0.00005		0.000027		0.009		0.00425		0.00165		0.935		0.000455		0.0001		0.0071		0.00041		0.000105		0.00057		0.012		0.00475		0.025
MBMG-2	BKGD	Mar-97	148	53	440		8.76		0.005	U	4		0.00105		0.003		0.141		0.0001		0.0002		0.004		0.00425		0.00165		0.009		0.000455		0.0000485		0.0071		0.003		0.000105		0.003		0.01		0.013		0.025
MBMG-2	BKGD	Sep-97	187	56	847		5.83		0.005	U	11		0.00105		0.004		0.15		0.00005		0.000027		0.004		0.00425		0.00165		0.009		0.003		0.0000485		0.0071		0.00041		0.000105		0.00057		0.009		0.00475		0.025
MBMG-2	BKGD	Apr-98	117	58	784		13.4		0.006		42		0.00105		0.002		0.132		0.00005		0.0001		0.004		0.00425		0.00165		0.009		0.002		0.0000485		0.0071		0.001		0.000105		0.00057		0.007		0.00475		0.025
MBMG-2	BKGD	Oct-98	140	54	815		7.75				27		0.00105		0.004		0.146		0.00005		0.000027		0.004		0.00425		0.00165		0.009		0.000455		0.0000485		0.0071		0.00041		0.000105		0.00057		0.009		0.015		0.025
MBMG-2	BKGD	Jun-99	167	61	848		9.85		0.005	U	23		0.00105		0.004		0.158		0.001		0.0003		0.004		0.00425		0.00165		0.031		0.000455		0.0000485		0.0071		0.00041		0.000105		0.00057		0.006		0.023		0.025
MBMG-2	BKGD	Dec-99	151	62	852		10.5		0.005	U	14		0.00105		0.002		0.155		0.00005		0.000027		0.004		0.00425		0.00165		0.009		0.000455		0.0000485		0.0071		0.00041		0.000105		0.00057		0.007		0.00475		0.025
MBMG-2	BKGD	Jun-00	162	69	856		11.8		0.005	U	42		0.00105		0.0006		0.15		0.00005		0.0003		0.004		0		0.00165		0.009		0.000455		0.0000485		0.0071		0.00041		0.001		0.00057		0.007		0.00475		0.025
MBMG-2	BKGD	Dec-00	143	58	788		7.7		0.005	U	133		0.003		0.0006		0.13		0.0001		0.0001		0.004		0		0.00165		0.009		0.000455		0.0000485		0.0071		0.00041		0.000105		0.00057		0.004		0.00475		0.025
MBMG-2	BKGD	Jun-01	122	39	703	7	6.1		0.005	U	9.0		0.00105		0.0011		0.118		0.00005		0.0011		0.004		0		0.0044		0.0343		0.001		0.000092		0.0071		0.0015		0.000105		0.0013		0.0077		0.00175		0.025
MBMG-2	BKGD	Oct-01	136	52	747	7.1	6.4		0.005	U	11.0		0.002		0.001		0.13		0.00005		0.000027		0.004		0		0.00165		0.0080		0.000455		0.0000485		0.0071		0.00041		0.000105		0.00057		0.009		0.017		0.025
MBMG-2	BKGD	Mar-02	146	59	859	7.6	8.59		0.005	U	121.0		0.00105		0.0006		0.173		0.00005		0.00008		0.004		0		0.0042		2.1800		0.00153		0.0000485		0.0071		0.0018		0.000105		0.00057		0.0115		0.0918		0.025
MBMG-2	BKGD	Sep-02	148	58	801	7.9	9.15		0.005	U	16.5		0.0034		0.0026		0.143		0.00005		0.000027		0.004		0		0.00165		0.0183		0.000455		0.00005		0.0071		0.00041		0.000105		0.00057		0.0026		0.0088		0.025
MBMG-2	BKGD	Apr-03	158	57	823	7.1	8.3		0.005	U	16.0		0.0009		0.0018		0.139		0.00005		0.00012		0.004		0		0.00165		0.0050		0.000455		0.00005		0.0071		0.00041		0.000105		0.00002		0.0105		0.0096		0.025
MBMG-2	BKGD	Sep-03	201	70	921	7.3	8.92		0.005	U	5.8		0.0011		0.0026		0.179		0.00005		0.00006		0.004		0		0.00165		0.0060		0.00022		0.00005		0.0071		0.001		0.000105		0.00005		0.0026		0.0354		0.025
MBMG-2	BKGD	Mar-04	135	55	739	7.0	6.8		0.005	U	55.0		0.00025		0.0024		0.124		0.00005		0.00005		0.004		0		0.00165		0.0050		0.000455		0.00005		0.0071		0.00041		0.000105		0.00005		0.0076		0.021		0.025
MBMG-2	BKGD	Sep-04	137	57	749	7.2	5.6		0.005	U	10.7		0.00025		0.0015		0.132		0.00005		0.00014		0.004		0		0.0018		0.0240		0.000455		0.00005		0.0071		0.0031		0.000105		0.00005		0.0065		0.0015		0.025
MBMG-2	BKGD	Mar-05	212	60	727	7.0	6.7		0.005	U	3.8		0.00025		0.0017		0.123		0.00005		0.00005		0.004		0		0.0055		0.0050		0.00013		0.00005		0.0071		0.003		0.000105		0.00005		0.0081		0.0033		0.025
MBMG-2	BKGD	Sep-05	247	64	796	6.8	4.3		0.005	U	7.4		0.00025		0.0016		0.138		0.00005		0.00005		0.004		0		0.00165		0.0050		0.000455		0.00005		0.0071		0.003		0.000105		0.00005		0.0077		0.0033		0.025
MBMG-2	BKGD	Mar-06	144	46	763	6.9	6.61		0.005	U	6.4		0.00051		0.0017		0.137		0.00005		0.00005		0.004		0		0.00165		0.0050		0.0002		0.00005		0.0071		0.0011		0.000105		0.00005		0.00861		0.012		0.025
MBMG-2	BKGD	Sep-06	148	55	773	7.1	3.39		0.005	U	5.0		0.00025		0.0018		0.138		0.00005		0.00007		0.004		0		0.00165		0.0050		0.00068		0.00005		0.0071		0.0022		0.000105		0.00006		0.0102		0.003		0.025
MBMG-2	BKGD	Mar-07	129	50	727	6.7	5.49		0.005	U	5.0		0.00025		0.0014		0.126		0.00005		0.00008		0.004		0		0.00165		0.0050		0.00010		0.00005		0.007		0.0024		0.000105		0.00005		0.0094		0.009		0.025
MBMG-2	BKGD	Sep-07	144	56	806	7.2	4.42		0.005	U	7.7		0.00025		0.00156		0.136		0.00005		0.00005		0.004		0		0.0011		0.0050		0.00022		0.00005		0.007		0.00237		0.000105		0.00005		0.00732		0.004		0.025
MBMG-2	BKGD	Mar-08	138	53	736	7.0	5.05		0.005	U	39.9		0.00025		0.00146		0.122		0.00005		0.00005		0.004		0		0.00279		0.0050		0.00010		0.00005		0.007		0.00041		0.000105		0.00005		0.00611		0.003		0.025
MBMG-2	BKGD	Sep-08	149	56	786	7.0	4.21		0.005	U	8.0		0.00025		0.0025		0.01		0.00005		0.00005		0.004		0		0.00165		0.0050		0.00046		0.00005		0.007		0.00041		0.000105		0.00005		0.0026		0.003		0.025
MBMG-2	BKGD	Mar-09	149	42	755	7.2	6.52		0.005	U	6.0		0.005		0.005		0.1		0.001		0.001		0.01		0.01		0.01		0.0300		0.01000		0.00100		0.010		0.005		0.005		0.00500		0.1		0.010		0.025
MBMG-2	BKGD	Oct-09	175	60	863	7.0	6.70		0.005	U	25.0	U	0.0005	U	0.0014		0.14		0.0002	U	0.00005	U	0.0005	U	0.0005	U	0.0012		0.0500	U	0.00010	U	0.00020	U	0.001	U	0.0007		0.0005	U	0.00050	U	0.0067		0.005		0.025
Maximum Conc.	MBMG-2		247	70	921	7.9	13.4		0.006		244		0.009		0.010		0.179		0.002		0.0011		0.01		0.01		0.01		2.18		0.01		0.001		0.01		0.005		0.005		0.007		0.1		0.0918		0.025
MAXIMUM BACKGROUND CONC.			**247**	**70**	**921**	**7.9**	**13.4**		**0.006**		**244**		**0.009**		**0.01**		**0.179**		**0.002**		**0.0011**		**0.01**		**0.01**		**0.01**		**2.18**		**0.01**		**0.001**		**0.01**		**0.005**		**0.005**		**0.007**		**0.1**		**0.0918**		**0.025**
DOWNGRADIENT WELLS:																																															
BSB-A1	BASELINE	Feb-94	148	20	591		0.025		0.005	U	33		0.00105		0.004		0.122		0.0008		0.0007		0.004		0.00425		0.00165		0.022		0.002		0.0000485		0.0071		0.00041		0.000105		0.00057		0.0026		0.017		0.1
BSB-A1	BASELINE	Aug-94	176	17	654		0.61		0.005	U	44		0.00105		0.0006		0.122		0.0008		0.000027		0.004		0.00425		0.00165		0.009		0.000455		0.0003		0.0071		0.002		0.000105		0.005		0.0026		0.00475		0.025
BSB-A1	BASELINE	Jan-95	100	15	450		0.46				47		0.006		0.002		0.081		0.0008		0.0003		0.004		0.00425		0.00165		0.026		0.000455		0.0000485		0.0071		0.00041		0.000105		0.007		0.004		0.00475		0.025
BSB-A1	BASELINE	Feb-95	85	14	418		0.68				28		0.007		0.003		0.081		0.0008		0.0001		0.004		0.00425		0.00165		0.08		0.000455		0.0000485		0.0071		0.00041		0.000105		0.005		0.0026		0.02		0.025
BSB-A1	BASELINE	Mar-95	84	15	426		0.64				131		0.00105		0.0006		0.072		0.0002		0.0001		0.004		0.00425		0.005		0.009		0.002		0.0000485		0.0071		0.00041		0.000105		0.005		0.0026		0.01		0.025
BSB-A1	BASELINE	Aug-95	103	15	473		0.63		0.005	U	138		0.002		0.002		0.076		0.0003		0.0002		0.004		0.00425		0.00165		0.025		0.000455		0.0000485		0.0071		0.00041		0.000105		0.007		0.0026		0.013		0.025
BSB-A1	BASELINE	Feb-96	88	16	466		0.56				88		0.00105		0.0006		0.076		0.00005		0.000027		0.014		0.00425		0.00165		0.021		0.000455		0.0001		0.0071		0.00041		0.000105		0.00057		0.0026		0.00475		0.025
BSB-A1	BASELINE	Sep-96	96	16	477		0.41		0.005	U	7		0.00105		0.006		0.076		0.00005		0.0003		0.004		0.00425		0.00165		0.009		0.000455		0.0000485		0.0071		0.00041		0.006		0.00057		0.0026		0.021		0.025
BSB-A1	BASELINE	Mar-97	80	16	802		0.59		0.005	U	5	U																																			0.025
BSB-A1	BASELINE	Sep-97	79	16	442		0.58		0.005	U	30																																				0.025
BSB-A1	BASELINE	Apr-98	74	16	440		1.91		0.005	U	24																																				0.025
BSB-A1	BASELINE	Oct-98	74	17	452		0.47		0.005	U	15																																				0.025
BSB-A1	BASELINE	Jun-99	80	20	439		0.55		0.005	U	13																																				0.025
BSB-A1	BASELINE	Dec-99	82	19	455		0.52		0.005	U	21																																				0.025
BSB-A1	BASELINE	Jun-00	92.9	18.1	466		0.52		0.005	U	38																																				0.025
BSB-A1	BASELINE	Dec-00	103	18.8	472		0.79		0.005	U	122.0																																				0.025
BSB-A1	BASELINE	Jun-01	73.7	18	457	6.9	0.86		0.005	U	16.0																																				0.025
BSB-A1	BASELINE	Oct-01	93	18	484	7	0.84		0.005	U	3.0																																				0.025
BSB-A1	BASELINE	Mar-02	79	17	510	7.2	0.67		0.005	U	50.0																																				0.025
BSB-A1	BASELINE	Sep-02	116	16	510	7.4	0.52		0.005	U	30.5																																				0.025
BSB-A1	BASELINE	Apr-03	84	17	475	7.1	0.42		0.005	U	18.0																																				0.025
BSB-A1	BASELINE	Sep-03	105	19	514	7.2	1.22		0.005	U	1.9																																				0.025
BSB-A1	BASELINE	Mar-04	105	19	473	7.1	0.71		0.005	U	20.6																																				0.025
BSB-A1	BASELINE	Sep-04	92.6	16	488	7.0	0.46		0.005	U	5.0	U																																			0.025
BSB-A1	BASELINE	Mar-05	130	18	465	7.1	0.56		0.005	U	5.0	U																																			0.025
BSB-A1	BASELINE	Sep-05	176	19	508	6.7	0.28		0.005	U	17.8																																				0.025
BSB-A1	BASELINE	Mar-06	76.6	16	466	6.8	0.43		0.005	U	12.3																																				0.025
BSB-A1	BASELINE	Sep-06	82	16	488	7.2	0.34		0.005	U	5.0	U																																			0.025
BSB-A1	BASELINE	Mar-07	88	17	482	6.9	0.25		0.005	U	5.0	U																																			0.025
BSB-A1	BASELINE	Sep-07	99	17	503	7.2	0.26		0.005	U	5.0	U																																			0.025
BSB-A1	BASELINE	Mar-08	80	16	466	7.1	0.32		0.005	U	9.0																																				0.025
BSB-A1	BASELINE	Sep-08	74	16	472	6.9	0.40		0.005	U	5.0	U																																			0.025
BSB-A1	BASELINE	Mar-09	78	16	466	7.1	0.46		0.005	U	5.0	U																																			0.025
BSB-A1	MONIT	Oct-09	72	18	465	6.9	0.41		0.008	U	25.0	U																																			0.025
Max. Baseline Conc. BSB-W5			176	20	802	7.4	1.91		0.005		138		0.007		0.006		0.122		0.0008		0.0007		0.014		0.00425		0.005		0.08		0.002		0.0003		0.0071		0.002		0.006		0.007		0.004		0.021		0.1
Latest Sample Exceed Max. Baseline?			No	No	No	No	No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No
Latest Sample Exceed Max. Background?			No	No	No	No	No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No
BSB-A5	BASELINE	Aug-95	278	20	704		0.05		0.005	U	534		0.002		0.002		0.028		0.0004		0.000027		0.004		0.00425		0.00165		0.04		0.000455		0.0002		0.0071		0.00041		0.000105		0.007		0.0026		0.027		0.025
BSB-A5	BASELINE	Dec-95	0	0			0						0.00105		0.002		0.022		0.0002		0.000027		0.004		0.00425		0.00165		0.031		0.002		0.0000485		0.0071		0.00041		0.000105		0.002		0.0026		0.00475		0.025
BSB-A5	BASELINE	Feb-96	0	0			0						0.003		0.0006		0.026		0.00005		0.000027		0.004		0.00425		0.00165		0.064		0.000455		0.0000485		0.0071		0.00041		0.000105		0.00057		0.0026		0.00475		0.025
BSB-A5	BASELINE	Sep-96	0	0			0						0.00105		0.009		0.027		0.00005		0.000027		0.004		0.00425		0.00165		0.009		0.000455		0.0001		0.0071		0.00041		0.000105		0.00057		0.006		0.019		0.025
BSB-A5	BASELINE	Mar-97	438	25	1100		2.42		0.005	U	5.0	U																																			0.025
BSB-A5	BASELINE	Sep-97	407	26	1140		1.96		0.005	U	39																																				0.025
BSB-A5	BASELINE	Apr-98	547	28	1200		3.48		0.005	U	24																																				0.025
BSB-A5	BASELINE	Oct-98	391	25	1060		2.57		0.005	U	8																																				0.025
BSB-A5	BASELINE	Jun-99	1140	19	706		0.66		0.005	U	71																																				0.025
BSB-A5	BASELINE	Dec-99	281	20	736		1.26		0.005	U	41																																				0.025
BSB-A5	BASELINE	Jun-00	254	18.1	662		0.13		0.005	U	125																																				0.025
BSB-A5	BASELINE	Jun-01	0	0			0																																								
BSB-A5	BASELINE	Oct-01	558	50	1230	7.3	4.6		0.005	U	16																																				0.025
BSB-A5	BASELINE	Mar-02	627	22	1570	6.3	2.69		0.005	U	35																																				0.025
BSB-A5	BASELINE	Sep-02	679	21	1360	7.8	3.26		0.005	U	5.4																																				0.025
BSB-A5	BASELINE	Apr-03	672	17	1400	6.1	0																																								0.025
BSB-A5	BASELINE	Sep-03	729	30	1470	6.1	5.45		0.005	U	5.0	U																																			0.025
BSB-A5	BASELINE	Mar-04	0	0			0																																								
BSB-A5	BASELINE	Sep-04	422	22	1010	6.1	2.3		0.005	U	5.0	U																																			0.025
BSB-A5	BASELINE	Mar-05	0	0			0																																								
BSB-A5	BASELINE	Sep-05	904	29	1350	5.5	2.8		0.005	U	7.4																																				0.025
BSB-A5	BASELINE	Mar-06	0	0			0																																								
BSB-A5	BASELINE	Sep-06	693	32	1570	6.5	4.24		0.005	U	5.0	U																																			0.025
BSB-A5	BASELINE	Mar-07	833	28	1620	6.1	3.64		0.005	U	5.0	U																																			0.025
BSB-A5	BASELINE	Sep-07	742	28	1530	6.2	4.17		0.005	U	5.0	U																																			0.025
BSB-A5	BASELINE	Mar-08	554	25	1178	6.0	1.68		0.005	U	46.0																																				0.025
BSB-A5	BASELINE	Sep-08	544	27	1180	5.6	2.92		0.005	U	12.0																																				0.025
BSB-A5	BASELINE	Mar-09	538	24	1180	6.0	1.63		0.005	U	11.0																																				0.025
BSB-A5	MONIT	Oct-09	560	30	1200	5.6	3.20		0.008	U	88.3																																				0.025
Max. Baseline Conc. BSB-W6			1140	50	1620	7.8	5.45		0.005		534		0.003		0.009		0.028		0.0004		0.000027		0.004		0.00425		0.00165		0.064		0.002		0.0002		0.0071		0.00041		0.000105		0.007		0.006		0.027		0.02
Latest Sample Exceed Max. Baseline?			No	No	No	No	No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No
Latest Sample Exceed Max. Background?			Yes	No	Yes	No	No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No
BSB-A6R	BASELINE	Jun-01	3740	41.1	4960	5.9	0.05	U	0.005	U	372																																				0.02
BSB-A6R	BASELINE	Oct-01	3420	48	4060	4.4	0.05	U	0.005	U	819																																				0.2
BSB-A6R	BASELINE	Mar-02	3390	42	4370	4.9	0.22		0.005	U	1030																																				0.2
BSB-A6R	BASELINE	Sep-02	2210	46	3330	5.9	0.05	U	0.005	U	760																																				0.3
BSB-A6R	BASELINE	Apr-03	2720	55	3930	6.5	0.05	U	0.005	U	956																																				0.3
BSB-A6R	BASELINE	Sep-03	1330	58	2600	6.4	0.05	U	0.005	U	39.7																																				0.4
BSB-A6R	BASELINE	Mar-04	1750	57	3050	6.2	0.05	U	0.005	U	5	U																																			0.4
BSB-A6R	BASELINE	Sep-04	1340	55	2600	6.2	0.05	U	0.005	U	8.6																																				0.5
BSB-A6R	BASELINE	Mar-05	2700	79.3	2790	6.2	0.05	U	0.005	U	10.2																																				0.3
BSB-A6R	BASELINE	Sep-05	1780	60	2560	6.2	0.089		0.005	U	28.3																																				0.3
BSB-A6R	BASELINE	Mar-06	1310	59.2	2630	6.3	0.06		0.005	U	18.3																																				0.3
BSB-A6R	BASELINE	Sep-06	860	50	2050	6.3	0.05	U	0.005	U	5	U																																			0.4
BSB-A6R	BASELINE	Mar-07	1200	54	2300	6.1	0.05	U	0.005	U	5	U																																			0.4
BSB-A6R	BASELINE	Sep-07	1200	50	2240	6.2	0.05	U	0.005	U	5	U																																			0.5
BSB-A6R	BASELINE	Mar-08	1610	42	2800	5.9	0.05	U	0.005	U	467																																				0.5
BSB-A6R	BASELINE	Sep-08	1180	57	2340	6.0	0.05	U	0.021		199																																				0.5
BSB-A6R	BASELINE	Mar-09	1640	51	2780	6.1	0.05	U	0.039		282																																				0
BSB-A6R	MONIT	Oct-09	1070	60	2220	6.1	0.05	U	0.008	U	353																																				0.
Max. Baseline Conc. BSB-W7			3740	79.3	4960	6.5	0.22		0.039		1030																																				0.
Latest Sample Exceed Max. Baseline?			No	No	No	No	No		No		No																																				Yes
Latest Sample Exceed Max. Background?			Yes	No	Yes	No	No		No		Yes																																				Yes
CLK-1	BASELINE	Jul-96													0.021						0.0036						0.009				0.000455														101		
CLK-1	BASELINE	Aug-96													0.027						0.0034						0.01				0.001														106		
CLK-1	BASELINE	Mar-97	1620	35	2770								0.00105		0.018		0.031		0.0007		0.0042		0.004		0.079		0.00165		9.52		0.000455		0.00005	U	0.22		0.003		0.000105		0.00057		0.0026		110		
CLK-1	BASELINE	Sep-97	1850	35	2830								0.00105		0.023		0.032		0.0004		0.0039		0.004		0.07		0.00165		13.7		0.002		0.00005	U	0.0071		0.00041		0.005		0.002		0.012		109		
CLK-1	BASELINE	Apr-98	1950	33	3040								0.00105		0.023		0.029		0.0008		0.0042		0.083		0.073		0.00165		13		0.006		0.00005	U	0.26		0.00041		0.000105		0.00057		0.0026		150		
CLK-1	BASELINE	Oct-98	1640	31	2870								0.00105		0.045		0.035		0.00005		0.0047		0.004		0.077		0.00165		19.4		0.001		0.00005	U	0.0071		0.00041		0.000105		0.002		0.019		102		
CLK-1	BASELINE	Jun-99	3720	34	3280								0.00105		0.027		0.03		0.001		0.0056		0.059		0.093		0.00165		17.8		0.000455		0.00005	U	0.78		0.00041		0.000105		0.00057		0.018		159		
CLK-1	BASELINE	Dec-99	1990	33.0	2980								0.003		0.092		0.037		0.00005		0.0055		0.234		0.075		0.00165		28.8		0.002		0.00005	U	0.0071		0.00041		0.000105		0.00057		0.0026		108		
CLK-1	BASELINE	Jun-00	1820	34.1	2830								0.00105		0.1		0.032		0.00005		0.007		0.012		0		0.00165		27.4		0.000455		0.00005	U	0.32		0.00041		0.000105		0.00057		0.0026		99.8		
CLK-1	BASELINE	Dec-00	1800	34.5	2730								0.00105		0.14		0.046		0.0009		0.006		0.08		0		0.02		30.1		0.005		0.00005	U	0.24		0.00041		0.000105		0.00057		0.008		101		
CLK-1	BASELINE	Jun-01	1670	32.6	2790	6.0							0.00105		0.0797		0.03		0.00005		0.0073		0.044		0		0.0158		24.7		0.0023		0.00005	U	0.0071		0.00076		0.000105		0.00011		0.0012		101		
CLK-1	BASELINE	Oct-01	1750	33	2770	6.1							0.00105		0.095		0.033		0.0005		0.0074		0.004		0		0.00165		26.1		0.000455		0.00005	U	0.0071		0.00041		0.000105		0.00057		0.0026		101		
CLK-1	BASELINE	Sep-02											0.311		0.0761		0.032		0.00005		0.00965		0.055		0		0.00165		23.1		0.000455		0.00005	U	0.0071		0.00041		0.000105		0.00057		0.0026		89.4		
CLK-1	BASELINE	Apr-03	1370	38	2500	6.3							0.0566		0.093		0.041		0.00047		0.0101		0.052		0		0.00165		20.5		0.0015		0.00005	U	0.0071		0.00041		0.000105		0.00005		0.0026		78.3		
CLK-1	BASELINE	Sep-03	1340	36	2530	6.3							0.00025		0.112		0.031		0.00053		0.0116		0.004		0		0.00165		23.8		0.00013		0.00005	U	0.0071		0.00092		0.000105		0.00005		0.0026		88.6		
CLK-1	BASELINE	Mar-04	1350	38	2460	6							0.00025		0.089		0.028		0.00038		0.0106		0.004		0		0.00165		20.9		0.000455		0.00005	U	0.0071		0.00041		0.000105		0.00005		0.0026		80.3		
CLK-1	BASELINE	Jun-04	1490	35	2580	6.2							0.00025		0.112		0.029		0.00044		0.0147		0.004		0		0.0035		24.2		0.00012		0.00005	U	0.0646		0.0044		0.000105		0.00005		0.0026		91.8		
CLK-1	BASELINE	Mar-05	1490	46.8	2520	6.2							0.00025		0.119		0.031		0.00041		0.0162		0.07		0		0.0185		23.4		0.00013		0.00005	U	0.393		0.0083		0.000105		0.00005		0.0026		90.1		
CLK-1	BASELINE	Sep-05	1990	34	2530	6.1							0.00025		0.114		0.034		0.00041		0.0169		0.004		0		0.00165		23.3		0.00019		0.00005	U	0.0071		0.0109		0.000105		0.00005		0.0026		91.7		
CLK-1	BASELINE	Mar-06	1350	36	2430	6.2							0.00039		0.089		0.024		0.00049		0.015		0.004		0		0.00165		19.6		0.00014		0.00005	U	0.007		0.0033		0.000105		0.00021		0.0026		78.2		
CLK-1	BASELINE	Sep-06	1430	33	2410	6							0.00025		0.0771		0.028		0.00048		0.014		0.004		0		0.00165		19.4		0.00033		0.00005	U	0.013		0.0101		0.000105		0.00008		0.0026		89		
CLK-1	BASELINE	Mar-07	1380	32	2330	6.2							0.00025		0.0643		0.029		0.00041		0.0151		0.004		0		0.0014		19.8		0.00010		0.00005	U	0.007		0.0065		0.000105		0.00005		0.0026		85.2		
CLK-1	BASELINE	Sep-07	1360	30	2240	6.5							0.00025		0.0917		0.028		0.00048		0.0172		0.004		0		0.00118		17.4		0.00030		0.00005	U	0.007		0.0045		0.000105		0.00004		0.0026		75.2		
CLK-1	BASELINE	Mar-08	1400	31	2300	6.1							0.00025		0.122		0.031		0.00005		0.0193		0.004		0		0.0255		21.9		0.00005		0.00005	U	0.052		0.00041		0.000105		0.00005		0.0026		84.4		
CLK-1	BASELINE	Sep-08	1370	28	2400	6.1							0.00025		0.108		0.024		0.0005		0.019		0.005		0		0.005		19.3		0.00500		0.00005	U	0.050		0.00041		0.000105		0.00005		0.0026		80.0		
CLK-1	BASELINE	Mar-09	350	34	2250	6.4							0.0001		0.11		0.026		0.00041		0.018		0.0005		0.058		0.00074		19.2		0.00010		0.00020	U	0.047		0.0005		0.0005		0.00050		0.00035		62.7		
CLK-1	MONIT	Oct-09	1090	33	2110	6.1							0.0005	U	0.17		0.024		0.0005		0.022		0.0005	U	0.053		0.0031		20.6		0.00019		0.00020	U	0.041		0.0005	U	0.0005	U	0.00050	U	0.00039		84.0		
Max. Baseline Conc. BSB-W8			3720	46.8	3280	6.5							0.311		0.14		0.046		0.001		0.0193		0.234		0.093		0.0255		30.1		0.006		0.0002		0.78		0.0109		0.005		0.002		0.019		159		
Latest Sample Exceed Max. Baseline?			No	No	No	No							No		Yes		No		No		Yes		No		No		No		No		No		No		No		No		No		No		No		No		
Latest Sample Exceed Max. Background?			Yes	No	Yes	No							No		Yes		No		No		Yes		No		Yes		No		Yes		No		No		Yes		No		No		No		No		Yes		
CLK-2	BASELINE	Mar-97	467	62	1330								0.004		0.003		0.032		0.0002		0.000027		0.004		0.00425		0.00165		0.009		0.001		0.0001		0.0071		0.006		0.000105		0.003		0.0026		0.077		
CLK-2	BASELINE	Sep-97	552	68	1600								0.004		0.003		0.04		0.0002		0.000027		0.011		0.00425		0.00165		0.009		0.002		0.0000485		0.0071		0.00041		0.003		0.00057		0.004		0.021		
CLK-2	BASELINE	Apr-98	748	75	1740								0.00105		0.004		0.032		0.0001		0.0001		0.004		0.00425		0.00165		0.009		0.006		0.0000485		0.0071		0.001		0.000105		0.00057		0.004		0.008		
CLK-2	BASELINE	Oct-98	724	48	1660								0.00105		0.006		0.031		0.00005		0.000027		0.004		0.00425		0.00165		0.009		0.001		0.0002		0.0071		0.00041		0.000105		0.00057		0.0026		0.028		
CLK-2	BASELINE	Jun-99	1660	31	1800								0.003		0.0006		0.036		0.001		0.0001		0.004		0.00425		0.00165		0.667		0.001		0.0000485		0.01		0.00041		0.000105		0.00057		0.0026		0.114		
CLK-2	BASELINE	Dec-99	875	29	1750								0.00105		0.005		0.03		0.00005		0.000027		0.004		0.00425		0.00165		0.079		0.002		0.0000485		0.0071		0.00041		0.000105		0.00057		0.0026		0.073		
CLK-2	BASELINE	Jun-00	819	35.2	1820								0.00105		0.001		0.03		0.00005		0.0002		0.004		0		0.00165		1.4		0.001		0.0000485		0.011		0.00041		0.001		0.00057		0.0026		0.073		
CLK-2	BASELINE	Dec-00	1010	43.1	1820								0.00105		0.0006		0.027		0.0004		0.0004		0.004		0		0.004		0.0090		0.001		0.0000485		0.0071		0.00041		0.000105		0.003		0.0026		0.087		
CLK-2	BASELINE	Jun-01	757	58.3	1880								0.0032		0.0006		0.029		0.00005		0.000027		0.004		0		0.0118		0.0307		0.000455		0.00027		0.0071		0.00041		0.000105		0.00011		0.0012		0.0786		
CLK-2	BASELINE	Oct-01	0	0		6.4							0.00105		0.0006		0.052		0.0002		0.000027		0.004		0		0.00165		2.5000		0.001		0.00010		0.0071		0.00041		0.000105		0.00057		0.007		0.18		
CLK-2	BASELINE	Mar-02	848	61	1990	6.9							0.00105		0.0006		0.029		0.00005		0.00006		0.004		0		0.0016		0.0084		0.000455		0.00018		0.0071		0.0014		0.000105		0.00072		0.0026		0.237		
CLK-2	BASELINE	Sep-02	996	67	1960	7.9							0.00105		0.0026		0.03		0.00005		0.00028		0.004		0		0.00165		0.0468		0.000455		0.00012		0.0207		0.00041		0.000105		0.00057		0.0026		0.708		
CLK-2	BASELINE	Apr-03	822	66	1970	6.7							0.0013		0.0014		0.026		0.00005		0.00053		0.004		0		0.00165		0.0050		0.000455		0.00012		0.0071		0.00041		0.000105		0.00002		0.0025		0.645		
CLK-2	BASELINE	Sep-03	788	73	1960	6.6							0.00025		0.003		0.025		0.00005		0.00054		0.004		0		0.00165		0.0050		0.00005		0.00019		0.022		0.0026		0.000105		0.00005		0.0041		0.793		
CLK-2	BASELINE	Mar-04	841	62	1940	6.3							0.00025		0.003		0.023		0.00005		0.00071		0.004		0		0.00165		0.0050		0.00005		0.0000485		0.0254		0.00041		0.000105		0.00005		0.0026		0.709		
CLK-2	BASELINE	Sep-04	743	62	1850	6.4							0.00025		0.001		0.021		0.00005		0.0011		0.004		0		0.0017		0.0252		0.00011		0.0000485		0.0238		0.0037		0.000105		0.00005		0.0026		0.713		
CLK-2	BASELINE	Mar-05	853	61.8	1850	6.3							0.00025		0.001		0.022		0.00005		0.00079		0.004		0		0.0131		0.0050		0.00013		0.0000485		0.0252		0.0049		0.000105		0.00005		0.0026		0.594		
CLK-2	BASELINE	Sep-05	921	64	1820	6.2							0.00025		0.002		0.02		0.00005		0.0012		0.004		0		0.0044		0.0323		0.00005		0.00025		0.0336		0.0047		0.000105		0.00005		0.0026		0.703		
CLK-2	BASELINE	Mar-06	792	63.9	1830	6.4							0.00025		0.002		0.02		0.00005		0.00094		0.004		0		0.0017		0.0050		0.00013		0.0000485		0.0335		0.0024		0.000105		0.00013		0.0026		0.667		
CLK-2	BASELINE	Sep-06	722	64	1820	6.4							0.00025		0.002		0.02		0.00005		0.00096		0.004		0		0.0078		0.005		0.00037		0.0000485		0.032		0.0037		0.000105		0.00009		0.0026		0.695		
CLK-2	BASELINE	Mar-07	843	58	1880	6.5							0.00025		0.0018		0.024		0.00005		0.00078		0.004		0		0.0043		0.0194		0.00010		0.0000485		0.007		0.0033		0.000105		0.00005		0.0026		0.71		
CLK-2	BASELINE	Sep-07	828	58	1870	6.5							0.00025		0.00115		0.021		0.00005		0.000873		0.004		0		0.00643		0.005		0.00023		0.00005		0.042		0.00275		0.000105		0.00004		0.0026		0.539		
CLK-2	BASELINE	Mar-08	863	52.8	1883	6.4							0.00025		0.0012		0.02		0.00005		0.000027		0.004		0		0.00651		0.005		0.00005		0.00004		0.022		0.00041		0.000105		0.00005		0.0026		0.541		
CLK-2	BASELINE	Sep-08	820	56	1860	6.3							0.00025		0.0006		0.02		0.00005		0.000027		0.004		0		0.01		0.005		0.00046		0.00005		0.020		0.00041		0.000105		0.00005		0.0026		0.510		
CLK-2	BASELINE	Mar-09	804	58	1730	6.6							0.0001		0.001		0.019		0.0002		0.00095		0.00027		0.00026		0.0023		0.05		0.00006		0.00020		0.026		0.0005		0.0005		0.00050		0.0023		0.550		
CLK-2	MONIT	Oct-09	786	61	1790	6.3							0.0005	U	0.0018		0.018		0.0002	U	0.00086		0.0005	U	0.0005	U	0.0044		0.05	U	0.00010	U	0.00020	U	0.025		0.0005	U	0.0005	U	0.00050	U	0.0023		0.510		
Max. Baseline Conc. BSB-W8			1660	75	1990	7.9							0.004		0.006		0.052		0.001		0.0012		0.011		0.00425		0.0131		2.5		0.006		0.00027		0.0422		0.006		0.003		0.003		0.007		0.793		
Latest Sample Exceed Max. Baseline?			No	No	No	No							No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		No		
Latest Sample Exceed Max. Background?			Yes	No	Yes	No							No		No		No		No		No		No		No		No		No		No		No		Yes		No		No		No		No		Yes		

U - compound not detected

J - compound detected, but concentration less than quantitation limit

Ag mg/L	Ag FLAG	Tl mg/L	Tl FLAG	V mg/L	V FLAG	Zn mg/L	Zn FLAG	Benzene µg/L	Benzene FLAG	Chloroethane µg/L	Chloroethane FLAG	Chloroform µg/L	Chloroform FLAG	1,4-Dichlorobenzene µg/L	1,4-Dichlorobenzene FLAG	Dichlorodiflouromethane µg/L	Dichlorodiflouromethane FLAG	1,1-Dichloroethane µg/L	1,1-Dichloroethane FLAG	cis-1,2-Dichloroethene µg/L	cis-1,2-Dichloroethene FLAG	1,2-Dichloropropane µg/L	1,2-Dichloropropane FLAG	Naphthalene µg/L	Naphthalene FLAG	Tetrachloroethene µg/L
0.000105		0.00057		0.012		0.00475		0.025	U	0.05	U	0.75		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0		0		0		0																				
0.000105		0.006		0.01		0.00475		0.025	U	0.05	U	0.84		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.006		0.006		0.03		0.025	U	0.05	U	0.98		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.005		0.013		0.02		0.025	U	0.05	U	0.81		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.007		0.008		0.00475		0.025	U	0.05	U	0.78		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00057		0.012		0.00475		0.025	U	0.05	U	0.82		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.003		0.01		0.013		0.025	U	0.05	U	0.37		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00057		0.009		0.00475		0.025	U	0.05	U	0.44		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00057		0.007		0.00475		0.025	U	0.05	U	0.57		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00057		0.009		0.015		0.025	U	0.05	U	0.42		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00057		0.006		0.023		0.025	U	0.05	U	0.29		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00057		0.007		0.00475		0.025	U	0.05	U	0.045		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.001		0.00057		0.007		0.00475		0.025	U	0.05	U	0.045		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00057		0.004		0.00475		0.025	U	0.05	U	0.39		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.0013		0.0077		0.00175		0.025	U	0.05	U	0.32		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00057		0.009		0.017		0.025	U	0.05	U	0.41		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00057		0.0115		0.0918		0.025	U	0.05	U	0.045		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00057		0.0026		0.0088		0.025	U	0.05	U	0.54		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.17	U	0.04
0.000105		0.00002		0.0105		0.0096		0.025	U	0.05	U	0.27		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00005		0.0026		0.0354		0.025	U	0.05	U	0.47		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00005		0.0076		0.021		0.025	U	0.05	U	0.51		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00005		0.0065		0.0015		0.025	U	0.05	U	0.58		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00005		0.0081		0.0033		0.025	U	0.05	U	0.52		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00005		0.0077		0.0033		0.025	U	0.05	U	0.42		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00005		0.00861		0.012		0.025	U	0.05	U	0.5		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00006		0.0102		0.003		0.025	U	0.05	U	0.45		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00005		0.0094		0.009		0.025	U	0.05	U	0.41		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00005		0.00732		0.004		0.025	U	0.05	U	0.46		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00005		0.00611		0.003		0.025	U	0.05	U	0.4		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.000105		0.00005		0.0026		0.003		0.025	U	0.05	U	0.42		0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
0.005		0.00500		0.1		0.010		0.025	U	0.05	U	0.25	U	0.06	U	0.04	U	0.02	U	0.045	U	0.08	U	0.13	U	0.04
0.0005	U	0.00050	U	0.0067		0.005		0.025	U	0.05	U	0.25	U	0.06	U	0.04	U	0.02	U	0.045	U	0.08	U	0.13	U	0.04
0.005		0.007		0.1		0.0918		0.025		0.05		0.98		0.06		0.04		0.045		0.045		0.08		0.17		0.04
0.005		**0.007**		**0.1**		**0.0918**		**0.025**		**0.05**		**0.98**		**0.06**		**0.04**		**0.045**		**0.045**		**0.08**		**0.17**		**0.04**
0.000105		0.00057		0.0026		0.017		0.19		0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	1.8
0.000105		0.005		0.0026		0.00475		0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.74		0.08	U	0.13	U	3.3
0.000105		0.007		0.004		0.00475		0.025	U	0.05	U	0.045	U	0.06	U	0.15		0.045	U	0.39		0.08	U	0.13	U	1.6
0.000105		0.005		0.0026		0.02		0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.59
0.000105		0.005		0.0026		0.01		0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.75
0.000105		0.007		0.0026		0.013		0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.28		0.08	U	0.13	U	0.04
0.000105		0.00057		0.0026		0.00475		0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.63
0.006		0.00057		0.0026		0.021		0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.6
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.11
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.42		0.08	U	0.13	U	0.55
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.4		0.08	U	0.13	U	0.38
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.42		0.08	U	0.13	U	0.63
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
								0.025	U	0.05	U	0.045	U	0.06	U	0.10		0.045	U	0.42		0.08	U	0.13	U	0.35
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.53		0.08	U	0.13	U	0.57
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.45		0.08	U	0.13	U	0.82
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.54
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.54
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.56		0.08	U	0.13	U	0.54
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.23		0.08	U	0.13	U	0.54
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.7		0.08	U	0.13	U	0.48
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.35		0.08	U	0.13	U	0.04
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.27		0.08	U	0.13	U	0.27
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.22		0.08	U	0.13	U	0.04
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.02	U	0.045	U	0.08	U	0.13	U	0.04
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.02	U	0.045	U	0.08	U	0.13	U	0.04
0.006		0.007		0.004		0.021		0.19		0.05		0.045		0.06		0.15		0.045		0.74		0.08		0.13		3.3
No		No		No		No		No		No		No		No		No		No		No		No		No		No
No		No		No		No		No		No		No		No		No		No		No		No		No		No
0.000105		0.007		0.0026		0.027		0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.63		0.08	U	0.13	U	0.41
0.000105		0.002		0.0026		0.00475		0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	1.6		0.08	U	0.13	U	2.6
0.000105		0.00057		0.0026		0.00475		0.025	U	0.05	U	0.045	U	0.06	U	0.14		0.14		1.5		0.08	U	0.13	U	2.7
0.000105		0.00057		0.006		0.019		0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.17		1.3		0.08	U	0.13	U	5.2
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.17		1.0		0.08	U	0.13	U	2.6
								0.025	U	0.05	U	0.045	U	0.06	U	0.26		0.045	U	0.97		0.08	U	0.13	U	4.0
								0.025	U	0.05	U	0.045	U	0.06	U	0.26		0.045	U	1.1		0.08	U	0.13	U	2.9
								0.025	U	0.05	U	0.045	U	0.06	U	0.4	U	0.045	U	1.1		0.08	U	0.13	U	4.3
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.37		0.08	U	0.13	U	0.69
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	1.1		0.08	U	0.13	U	0.92
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.85		0.08	U	0.13	U	0.37
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.35		0.08	U	0.13	U	0.42
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.61		0.08	U	0.13	U	0.45
								0.025	U	0.05	U	0.2		0.06	U	0.04	U	0.045	U	0.47		0.08	U	0.13	U	0.34
								0.025	U	0.05	U	0.1		0.06	U	0.14		0.045	U	0.63		0.08	U	0.13	U	0.4
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.46		0.08	U	0.13	U	0.32
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.58		0.08	U	0.13	U	0.36
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.58		0.08	U	0.13	U	0.36
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.44		0.08	U	0.13	U	0.04
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	1.2		0.08	U	0.13	U	0.7
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	1.3		0.08	U	0.13	U	0.7
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	1.7		0.08	U	0.13	U	1.
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	0.89		0.08	U	0.13	U	0.6
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.045	U	1.0		0.08	U	0.13	U	0.7
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.02	U	0.68		0.08	U	0.13	U	0.4
								0.025	U	0.05	U	0.045	U	0.06	U	0.04	U	0.02	U	1.1		0.08	U	0.13	U	0.7
0.000105		0.007		0.006		0.027		0.025		0.05		0.2		0.06		0.4		0.17		1.7		0.08		0.13		5.
No		No		No		No		No		No		No		No		No		No		No		No		No		N
No		No		No		No		No		No		No		No		No		No		Yes		No		No		Ye
								0.025	U	0.05	U	0.045	U	0.06	U	3.4		2.5		3.8		0.52		0.13	U	0.7
								0.28		0.05	U	0.045	U	0.06	U	3.8		2		4.7		0.50		1.8		0.5
								0.26		0.05	U	0.32		0.06	U	4.1		2.6		2.6		0.57		0.13	U	0.6
								0.39		0.05	U	0.045	U	0.06	U	4.2		3		7.5		0.70		1.0		0.6
								0.31		0.05	U	0.045	U	0.06	U	3.8		2.4		3		0.59		0.13		0
								0.49		0.37		0.045	U	0.06	U	3.2		2.5		11.6		0.71		1.0		0.4
								0.43		0.05	U	0.045	U	0.06	U	5.1		2.9		4.8		0.73		0.68		0.6
								0.54		0.05	U	0.045	U	0.06	U	5.1		2.8		6.1		0.72		0.7		0
								0.33		0.05	U	0.045	U	0.06	U	3.5		2.2		2.9		0.71		0.13	U	0
								0.39		0.05	U	0.045	U	0.06	U	3.5		2.5		5.5		0.71		0.13	U	0
								0.36		0.05	U	0.045	U	0.06	U	3.9		2.5		2.2		0.72		0.13	U	0.
								0.45		0.44		0.045	U	0.06	U	1.8		1.8		11		0.54		0.13	U	0.
								0.45		0.33		0.045	U	1.3		2.7		1.7		8		0.60		0.13	U	0.
								0.55		0.45		0.045	U	2.1		2		1.8		9.8		0.54		0.13	U	0.
								0.56		0.6		0.045	U	2.7		2.3		1.8		9.1		0.52		0.13	U	0.
								0.58		0.45		0.045	U	2.6		1.1		1.3		8.5		0.44		0.13	U	0.
								0.6		0.51		0.045	U	2.8		2.0		1.5		8.2		0.48		0.72		0.
								0.83	J	0.5	U	0.5	U	2.9		2.0		1.9		7.9		0.64	J			0
								0.64		0.6		0.32		2.8		5.1		3		11.6		0.73		1.8		0
								Yes		No		No		Yes		No		No		No		No		No		
								Yes		No		No		Yes		Yes		Yes		Yes		Yes		No		
						101																				
						106																				
0.000105		0.00057		0.0026		110																				
0.005		0.002		0.012		109																				
0.000105		0.00057		0.0026		150																				
0.000105		0.002		0.019		102																				
0.000105		0.00057		0.018		159																				
0.000105		0.00057		0.0026		108																				
0.000105		0.00057		0.0026		99.8																				
0.000105		0.00057		0.008		101																				
0.000105		0.00011		0.0012		101																				
0.000105		0.00057		0.0026		101																				
0.000105		0.00057		0.0026		89.4																				
0.000105		0.00005		0.0026		78.3																				
0.000105		0.00005		0.0026		88.6																				
0.000105		0.00005		0.0026		80.3																				
0.000105		0.00005		0.0026		91.8																				
0.000105		0.00005		0.0026		90.1																				
0.000105		0.00005		0.0026		91.7																				
0.000105		0.00021		0.0026		78.2																				
0.000105		0.00008		0.0026		89																				
0.000105		0.00005		0.0026		85.2																				
0.000105		0.00004		0.0026		75.2																				
0.000105		0.00005		0.0026		84.4																				
0.000105		0.00005		0.0026		80.0																				
0.0005		0.00050		0.00035		62.7																				
0.0005	U	0.00050	U	0.00039		84.0																				
0.005		0.002		0.019		159																				
No		No		No		No																				
No		No		No		Yes																				
0.000105		0.003		0.0026		0.077																				
0.003		0.00057		0.004		0.021																				
0.000105		0.00057		0.004		0.008																				
0.000105		0.00057		0.0026		0.028																				
0.000105		0.00057		0.0026		0.114																				
0.000105		0.00057		0.0026		0.073																				
0.001		0.00057		0.0026		0.073																				
0.000105		0.003		0.0026		0.087																				
0.000105		0.00011		0.0012		0.0786																				
0.000105		0.00057		0.007		0.18																				
0.000105		0.00072		0.0026		0.237																				
0.000105		0.00057		0.0026		0.708																				
0.000105		0.00002		0.0025		0.645																				
0.000105		0.00005		0.0041		0.793																				
0.000105		0.00005		0.0026		0.709																				
0.000105		0.00005		0.0026		0.713																				
0.000105		0.00005		0.0026		0.594																				
0.000105		0.00005		0.0026		0.703																				
0.000105		0.00013		0.0026		0.667																				
0.000105		0.00009		0.0026		0.695																				
0.000105		0.00005		0.0026		0.71																				
0.000105		0.00004		0.0026		0.539																				
0.000105		0.00005		0.0026		0.541																				
0.000105		0.00005		0.0026		0.510																				
0.0005		0.00050		0.0023		0.550																				
0.0005	U	0.00050	U	0.0023		0.510																				
0.003		0.003		0.007		0.793																				
No		No		No		No																				
No		No		No		Yes																				

Chloroform FLAG	1,4-Dichlorobenzene µg/L	1,4-Dichlorobenzene FLAG	Dichlorodiflouromethane µg/L	Dichlorodiflouromethane FLAG	1,1-Dichloroethane µg/L	1,1-Dichloroethane FLAG	cis-1,2-Dichloroethene µg/L	cis-1,2-Dichloroethene FLAG	1,2-Dichloropropane µg/L	1,2-Dichloropropane FLAG	Naphthalene µg/L	Naphthalene FLAG	Tetrachloroethene µg/L	Tetrachloroethene FLAG	Trichloroethene µg/L	Trichloroethene FLAG	Vinyl Chloride µg/L	Vinyl Chloride FLAG
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.17	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
U	0.06	U	0.04	U	0.02	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
U	0.06	U	0.04	U	0.02	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06		0.04		0.045		0.045		0.08		0.17		0.04		0.06		0.15	
	0.06		**0.04**		**0.045**		**0.045**		**0.08**		**0.17**		**0.04**		**0.06**		**0.15**	
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	1.8		0.4		0.15	U
U	0.06	U	0.04	U	0.045	U	0.74		0.08	U	0.13	U	3.3		0.72		0.15	U
U	0.06	U	0.15		0.045	U	0.39		0.08	U	0.13	U	1.6		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.59		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.75		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.28		0.08	U	0.13	U	0.04	U	0.39		0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.63		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.6		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.11		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.42		0.08	U	0.13	U	0.55		0.19		0.15	U
U	0.06	U	0.04	U	0.045	U	0.4		0.08	U	0.13	U	0.38		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.42		0.08	U	0.13	U	0.63		0.27		0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
U	0.06	U	0.10		0.045	U	0.42		0.08	U	0.13	U	0.35		0.2		0.15	U
U	0.06	U	0.04	U	0.045	U	0.53		0.08	U	0.13	U	0.57		0.2		0.15	U
U	0.06	U	0.04	U	0.045	U	0.45		0.08	U	0.13	U	0.82		0.27		0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.54		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.54		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.56		0.08	U	0.13	U	0.54		0.49		0.15	U
U	0.06	U	0.04	U	0.045	U	0.23		0.08	U	0.13	U	0.54		0.3		0.15	U
U	0.06	U	0.04	U	0.045	U	0.7		0.08	U	0.13	U	0.48		0.23		0.15	U
U	0.06	U	0.04	U	0.045	U	0.35		0.08	U	0.13	U	0.04	U	0.8		0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.27		0.08	U	0.13	U	0.27		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.22		0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
U	0.06	U	0.04	U	0.02	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
U	0.06	U	0.04	U	0.02	U	0.045	U	0.08	U	0.13	U	0.04	U	0.06	U	0.15	U
	0.06		0.15		0.045		0.74		0.08		0.13		3.3		0.8		0.15	
	No		No		No		No		No		No		No		No		No	
	No		No		No		No		No		No		No		No		No	
U	0.06	U	0.04	U	0.045	U	0.63		0.08	U	0.13	U	0.41		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	1.6		0.08	U	0.13	U	2.6		0.62		0.15	U
U	0.06	U	0.14		0.14		1.5		0.08	U	0.13	U	2.7		0.55		0.15	U
U	0.06	U	0.04	U	0.17		1.3		0.08	U	0.13	U	5.2		0.94		0.15	U
U	0.06	U	0.04	U	0.17		1.0		0.08	U	0.13	U	2.6		0.48		0.15	U
U	0.06	U	0.26		0.045	U	0.97		0.08	U	0.13	U	4.0		0.73		0.15	U
U	0.06	U	0.26		0.045	U	1.1		0.08	U	0.13	U	2.9		0.55		0.15	U
U	0.06	U	0.4	U	0.045	U	1.1		0.08	U	0.13	U	4.3		0.95		0.15	U
U	0.06	U	0.04	U	0.045	U	0.37		0.08	U	0.13	U	0.69		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	1.1		0.08	U	0.13	U	0.92		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.85		0.08	U	0.13	U	0.37		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.35		0.08	U	0.13	U	0.42		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.61		0.08	U	0.13	U	0.45		0.06	U	0.15	U
	0.06	U	0.04	U	0.045	U	0.47		0.08	U	0.13	U	0.34		0.06	U	0.15	U
	0.06	U	0.14		0.045	U	0.63		0.08	U	0.13	U	0.4		0.09		0.15	U
U	0.06	U	0.04	U	0.045	U	0.46		0.08	U	0.13	U	0.32		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.58		0.08	U	0.13	U	0.36		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.58		0.08	U	0.13	U	0.36		0.06	U	0.15	U
U	0.06	U	0.04	U	0.045	U	0.44		0.08	U	0.13	U	0.04	U	0.25		0.15	U
U	0.06	U	0.04	U	0.045	U	1.2		0.08	U	0.13	U	0.78		0.22		0.15	U
U	0.06	U	0.04	U	0.045	U	1.3		0.08	U	0.13	U	0.78		0.25		0.15	U
U	0.06	U	0.04	U	0.045	U	1.7		0.08	U	0.13	U	1.2		0.34		0.15	U
U	0.06	U	0.04	U	0.045	U	0.89		0.08	U	0.13	U	0.68		0.05	U	0.15	U
U	0.06	U	0.04	U	0.045	U	1.0		0.08	U	0.13	U	0.71		0.18		0.15	U
U	0.06	U	0.04	U	0.02	U	0.68		0.08	U	0.13	U	0.44		0.05	U	0.15	U
U	0.06	U	0.04	U	0.02	U	1.1		0.08	U	0.13	U	0.74	J	0.05	U	0.15	U
	0.06		0.4		0.17		1.7		0.08		0.13		5.2		0.95		0.15	
	No		No		No		No		No		No		No		No		No	
	No		No		No		Yes		No		No		Yes		No		No	
U	0.06	U	3.4		2.5		3.8		0.52		0.13	U	0.77		0.64		0.15	U
U	0.06	U	3.8		2		4.7		0.50		1.8		0.54		0.64		0.15	U
	0.06	U	4.1		2.6		2.6		0.57		0.13	U	0.67		0.53		0.26	
U	0.06	U	4.2		3		7.5		0.70		1.0		0.67		0.8		4.3	
U	0.06	U	3.8		2.4		3		0.59		0.13		0.6		0.46		0.63	
U	0.06	U	3.2		2.5		11.6		0.71		1.0		0.49		0.85		7.6	
U	0.06	U	5.1		2.9		4.8		0.73		0.68		0.69		0.56		2.1	
U	0.06	U	5.1		2.8		6.1		0.72		0.7		0.5		0.64		3.8	
U	0.06	U	3.5		2.2		2.9		0.71		0.13	U	0.5		0.41		1.5	
U	0.06	U	3.5		2.5		5.5		0.71		0.13	U	0.5		0.38		2.9	
U	0.06	U	3.9		2.5		2.2		0.72		0.13	U	0.48		0.27		1.2	
U	0.06	U	1.8		1.8		11		0.54		0.13	U	0.38		0.8		5.3	
U	1.3		2.7		1.7		8		0.60		0.13	U	0.46		0.58		3.8	
U	2.1		2		1.8		9.8		0.54		0.13	U	0.38		0.64		7.6	
U	2.7		2.3		1.8		9.1		0.52		0.13	U	0.49		0.66		6.7	
U	2.6		1.1		1.3		8.5		0.44		0.13	U	0.28		0.54		6.1	
U	2.8		2.0		1.5		8.2		0.48		0.72		0.04	U	0.64		6.9	
U	2.9		2.0		1.9		7.9		0.64	J			0.5	U	0.6	J	7.8	
	2.8		5.1		3		11.6		0.73		1.8		0.77		0.85		7.6	
	Yes		No		No		No		No		No		No		No		Yes	
	Yes		Yes		Yes		Yes		Yes		No		No		Yes		Yes	

1/20/2010

BSB-A1	BASELINE	Sep-96	96	16	477		0.41		0.005	U	7										
BSB-A1	BASELINE	Mar-97	80	16	802		0.59		0.005	U	5	U									
BSB-A1	BASELINE	Sep-97	79	16	442		0.58		0.005	U	30										
BSB-A1	BASELINE	Apr-98	74	16	440		1.91		0.005	U	24										
BSB-A1	BASELINE	Oct-98	74	17	452		0.47		0.005	U	15										
BSB-A1	BASELINE	Jun-99	80	20	439		0.55		0.005	U	13										
BSB-A1	BASELINE	Dec-99	82	19	455		0.52		0.005	U	21										
BSB-A1	BASELINE	Jun-00	92.9	18.1	466		0.52		0.005	U	38										
BSB-A1	BASELINE	Dec-00	103	18.8	472		0.79		0.005	U	122.0										
BSB-A1	BASELINE	Jun-01	73.7	18	457	6.9	0.86		0.005	U	16.0										
BSB-A1	BASELINE	Oct-01	93	18	484	7	0.84		0.005	U	3.0										
BSB-A1	BASELINE	Mar-02	79	17	510	7.2	0.67		0.005	U	50.0										
BSB-A1	BASELINE	Sep-02	116	16	510	7.4	0.52		0.005	U	30.5										
BSB-A1	BASELINE	Apr-03	84	17	475	7.1	0.42		0.005	U	18.0										
BSB-A1	BASELINE	Sep-03	105	19	514	7.2	1.22		0.005	U	1.9										
BSB-A1	BASELINE	Mar-04	105	19	473	7.1	0.71		0.005	U	20.6										
BSB-A1	BASELINE	Sep-04	92.6	16	488	7.0	0.46		0.005	U	5.0	U									
BSB-A1	BASELINE	Mar-05	130	18	465	7.1	0.56		0.005	U	5.0	U									
BSB-A1	BASELINE	Sep-05	176	19	508	6.7	0.28		0.005	U	17.8										
BSB-A1	BASELINE	Mar-06	76.6	16	466	6.8	0.43		0.005	U	12.3										
BSB-A1	BASELINE	Sep-06	82	16	488	7.2	0.34		0.005	U	5.0	U									
BSB-A1	BASELINE	Mar-07	88	17	482	6.9	0.25		0.005	U	5.0	U									
BSB-A1	BASELINE	Sep-07	99	17	503	7.2	0.26		0.005	U	5.0	U									
BSB-A1	BASELINE	Mar-08	80	16	466	7.1	0.32		0.005	U	9.0										
BSB-A1	BASELINE	Sep-08	74	16	472	6.9	0.40		0.005	U	5.0	U									
BSB-A1	BASELINE	Mar-09	78	16	466	7.1	0.46		0.005	U	5.0	U									
BSB-A1	MONIT	Oct-09	72	18	465	6.9	0.41		0.008	U	25.0	U									

Max. Baseline Conc. BSB-W5			176	20	802	7.4	1.91		0.005		138		0.007		0.006		0.122		0.0008		
Latest Sample Exceed Max. Baseline?			No	No	No	No	No		No		No		No		No		No		No		
Latest Sample Exceed Max. Background?			No	No	No	No	No		No		No		No		No		No		No		

BSB-A5	BASELINE	Aug-95	278	20	704		0.05		0.005	U	534		0.002		0.002		0.028		0.0004		0.0
BSB-A5	BASELINE	Dec-95	0	0			0						0.00105		0.002		0.022		0.0002		0.0
BSB-A5	BASELINE	Feb-96	0	0			0						0.003		0.0006		0.026		0.00005		0.0
BSB-A5	BASELINE	Sep-96	0	0			0						0.00105		0.009		0.027		0.00005		0.0
BSB-A5	BASELINE	Mar-97	438	25	1100		2.42		0.005	U	5.0	U									
BSB-A5	BASELINE	Sep-97	407	26	1140		1.96		0.005	U	39										
BSB-A5	BASELINE	Apr-98	547	28	1200		3.48		0.005	U	24										
BSB-A5	BASELINE	Oct-98	391	25	1060		2.57		0.005	U	8										
BSB-A5	BASELINE	Jun-99	1140	19	706		0.66		0.005	U	71										
BSB-A5	BASELINE	Dec-99	281	20	736		1.26		0.005	U	41										
BSB-A5	BASELINE	Jun-00	254	18.1	662		0.13		0.005	U	125										
BSB-A5	BASELINE	Jun-01	0	0			0														
BSB-A5	BASELINE	Oct-01	558	50	1230	7.3	4.6		0.005	U	16										
BSB-A5	BASELINE	Mar-02	627	22	1570	6.3	2.69		0.005	U	35										
BSB-A5	BASELINE	Sep-02	679	21	1360	7.8	3.26		0.005	U	5.4										
BSB-A5	BASELINE	Apr-03	672	17	1400	6.1	0														
BSB-A5	BASELINE	Sep-03	729	30	1470	6.1	5.45		0.005	U	5.0	U									
BSB-A5	BASELINE	Mar-04	0	0			0														
BSB-A5	BASELINE	Sep-04	422	22	1010	6.1	2.3		0.005	U	5.0	U									
BSB-A5	BASELINE	Mar-05	0	0			0														
BSB-A5	BASELINE	Sep-05	904	29	1350	5.5	2.8		0.005	U	7.4										
BSB-A5	BASELINE	Mar-06	0	0			0														
BSB-A5	BASELINE	Sep-06	693	32	1570	6.5	4.24		0.005	U	5.0	U									
BSB-A5	BASELINE	Mar-07	833	28	1620	6.1	3.64		0.005	U	5.0	U									
BSB-A5	BASELINE	Sep-07	742	28	1530	6.2	4.17		0.005	U	5.0	U									
BSB-A5	BASELINE	Mar-08	554	25	1178	6.0	1.68		0.005	U	46.0										
BSB-A5	BASELINE	Sep-08	544	27	1180	5.6	2.92		0.005	U	12.0										
BSB-A5	BASELINE	Mar-09	538	24	1180	6.0	1.63		0.005	U	11.0										
BSB-A5	MONIT	Oct-09	560	30	1200	5.6	3.20		0.008	U	88.3										

Max. Baseline Conc. BSB-W6			1140	50	1620	7.8	5.45		0.005		534		0.003		0.009		0.028		0.0004		0

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION MBMG-2 DATE 10/21/09 TIME 10:30
SAMPLERS BH/S WEATHER CONDITIONS Cloudy, 35°F, Calm
PHOTO: Yes ______ No X ROLL# — NUMBER ______

PURGE DATA:

PURGE METHOD 12Volt variable pump
START PURGING 11:05
PURGE RATE 0.39 ~~GPM~~ LPM
RATE CHANGE 1) Time ______ Rate ______
2) Time ______ Rate ______
SAMPLE TIME 1154

WELL DEPTH 23.25 Feet
DEPTH TO WATER 14.58 Feet TPVC
COLUMN DEPTH 8.67 Feet
CASING DIAMETER 2 Inch
PUMP SET AT 15 Feet
3 WELL VOLUMES 4.34 Gallons
TOTAL PURGE VOLUME ~~4.7~~ 5 BH Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-01	250ml ~~1 Liter~~	✓	HNO$_3$	Dissolved Metals-
BSB-GW-01	1 Liter		Raw	pH, SC, Cl$^-$, SO$_4^{-2}$
BSB-GW-01	250ml ~~1 Liter~~		H$_2$SO$_4$	NO2/NO3, COD
BSB-GW-01	250ml ~~1 Liter~~		NaOH	cyanide
BSB-GW-01	1 Liter		Raw	8270, 8151
BSB-GW-01	VOA		HCl	8260

FIELD PARAMATERS:

TIME	Amount Purged (Gal)	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
1122	1.6	9.7	7.08	830	129.1	2.54
1125	2	9.6	7.07	8.25	129.0	2.49
1128		9.5	7.07	826	128.4	2.35
1131	2.5	9.4	7.06	823	120.6	2.67
1134	3.0	9.5	7.07	821	115.8	2.31
1137	~~3.25~~ 5	9.3	7.08	821	106.5	2.33
1140	3.25	9.4	7.08	823	99.5	2.27
1143	3.50	9.7	7.06	824	89.1	2.48
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						
1154	4.5	9.6	7.07	829	80.4	2.45

FIELD REMARKS: ______

~~Pioneer Technical Services~~

FIELD SAMPLE DATA SHEET

Page # of #

Project Name: Old Landfill Groundwater Monitoring

WELL/STATION BSB-A1 DATE 10/21/09 TIME 12:30

SAMPLERS BH/F WEATHER CONDITIONS P. Cloudy, 40's, Calm

PHOTO: Yes ______ No X ROLL# ______ NUMBER ______

PURGE DATA:

PURGE METHOD	12 Volt pump w/ value	WELL DEPTH	57.00 Feet
START PURGING	13:20	DEPTH TO WATER	38.79 Feet
PURGE RATE	~~GPM~~ .1 LM	COLUMN DEPTH	18.21 Feet
RATE CHANGE	1) Time ______ Rate ______	CASING DIAMETER	2 Inch
		PUMP SET AT	47 Feet
	2) Time ______ Rate ______	3 WELL VOLUMES	9.1 Gallons
SAMPLE TIME	1430	TOTAL PURGE VOLUME	2 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-01	1 Liter		~~HNO3~~ F Raw	~~Dissolved Metals~~ F pH, SC, Cl-, SO4-2
BSB-GW-01	250 ml ~~1 Liter~~ F		H2SO4	NO2/NO3, COD
BSB-GW-01	250 ml ~~1 Liter~~		NaOH	Cyanide
BSB-GW-01	2 Liter			8270, 8151
BSB-GW-01	5 ~~2~~ Liter VOA		HCL	8260

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
1343	4.5 Gal	10.5	7.09	432	-224.8	1.42
1348	.75 Gal	11.0	7.07	430	-218.7	1.20
1353	.80 Gal	11.5	7.04	422	-227.5	1.21
1358	1.00	11.7	7.06	425	-226.8	1.21
1408	1.2	11.9	7.06	425	-233.1	1.13
1413	1.3	12.3	7.06	423	-227.1	1.08
1418	1.45	11.3	7.09	430	-227.6	1.23
1423	1.50	11.3	7.08	429	-233.9	1.16
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						
1430		11.1	7.10	432	-228.0	1.10

FIELD REMARKS: Final Drawdown - 39.48

~~Pioneer Technical Services~~

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION BSB-A5 DATE 10/21/09 TIME 14:15
SAMPLERS BH/F WEATHER CONDITIONS cloudy, 40's
PHOTO: Yes ______ No ✓ ROLL# ______ NUMBER ______

PURGE DATA:

PURGE METHOD Disposable Bailer
START PURGING 14:16
PURGE RATE ______ GPM
RATE CHANGE 1) Time ______ Rate ______
2) Time ______ Rate ______
SAMPLE TIME 1553

WELL DEPTH 45.60 Feet
DEPTH TO WATER 44.00 Feet
COLUMN DEPTH 1.60 Feet
CASING DIAMETER 2 Inch
PUMP SET AT NA Feet
3 WELL VOLUMES 0.80 Gallons
TOTAL PURGE VOLUME 1 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-03	1 Liter		~~HNO_3~~ Raw	~~Dissolved Metals~~ pH, SC, Cl, SO_4^{-2}
BSB-GW-03	~~1 Liter~~ 250ml		NaOH	cyanide
BSB-GW-03	~~1 Liter~~ 250ml		H_2SO_4	NO_2/NO_3, COD
BSB-GW-03	1 Liter		Raw	8151, 8270
BSB-GW-03	~~1 Liter~~ VOA		HCl	8260

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						
15:54	1	8.8	5.82	1172	-150.2	2.62

FIELD REMARKS: ______

~~Pioneer Technical Services~~

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring
WELL/STATION BSB-A6R DATE 10/22/09 TIME 09:30
SAMPLERS BH/F WEATHER CONDITIONS Cloudy, 40's, Calm
PHOTO: Yes ______ No _____ ROLL# ______ NUMBER _________

PURGE DATA:

WELL DEPTH 59.75 Feet
DEPTH TO WATER 52.45 Feet
COLUMN DEPTH 7.30 Feet
CASING DIAMETER 2 Inch
PUMP SET AT 56 Feet
3 WELL VOLUMES 3.65 Gallons
TOTAL PURGE VOLUME 1.3 Gallons

PURGE METHOD 12volt pump w/ valve
START PURGING 9:50
PURGE RATE 0.07 ~~GPM~~ LPM
RATE CHANGE 1) Time ______ Rate _________
2) Time ______ Rate _________
SAMPLE TIME 1100

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-04	1 Liter		~~HNO3~~ F Raw	~~Dissolved Metals~~ F pH, SC, Cl⁻, SO4⁻²
BSB-GW-04	250 ml ~~1 Liter~~ F		H_2SO_4	NO_2/NO_3, COD
BSB-GW-04	250 ml ~~1 Liter~~ F		NaOH	Cyanide
BSB-GW-04	2 Liter		No	8270
BSB-GW-04	2 Liter		No	8151
BSB-GW-04	3-40 ml VOAs		HCL	8260

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
1010	~.25 Gal	8.8	6.29	2218	112.1	1.67
1015		8.4	6.30	2227	110.5	1.59
1020		9.3	6.28	2212	108.7	1.41
1025	.5	9.3	6.28	2216	103.2	1.20
1030		9.2	6.29	2222	97.6	1.31
1035	.75 GPM	9.7	6.27	2204	91.0	1.17
1040		10.2	6.26	2198	82.5	1.10
1045	1 Gal	10.5	6.26	2187	74.3	1.04
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						
1100		11.2	6.25	2178	53.9	-1.00

FIELD REMARKS: Initial drawdown - 52.78'

~~Pioneer Technical Services~~

FIELD SAMPLE DATA SHEET

Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring

WELL/STATION	CLK-2	DATE	10/22/09	TIME	12:45
SAMPLERS	BH/S	WEATHER CONDITIONS			P.Cloudy, 50'S, Windy
PHOTO:	Yes ______ No ______	ROLL#	______	NUMBER	______

PURGE DATA:

PURGE METHOD	12volt Pump	WELL DEPTH	46.90 Feet
START PURGING	12:55	DEPTH TO WATER	41.42 Feet
PURGE RATE	0.116 GPM	COLUMN DEPTH	5.48 Feet
RATE CHANGE	1) Time ______ Rate ______	CASING DIAMETER	2 Inch
	2) Time ______ Rate ______	PUMP SET AT	45 Feet
		3 WELL VOLUMES	2.74 Gallons
SAMPLE TIME	1338	TOTAL PURGE VOLUME	5 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-06	1 Liter	✓	HNO_3	Dissolved Metals-
BSB-GW-06	1 Liter		Raw	pH, SC, Cl, SO_4^{-2}
	1 Liter			
	1 Liter			
	1 Liter			

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
1306	.75Gal	10.4	6.69	1689	-90.7	0.82
1310	1.25	10.7	6.55	1687	-209.3	0.79
1314	1.75	10.9	6.46	1691	-234.5	0.78
1318	2.25	10.2	6.44	1702	-236.3	0.81
1322	3.00	9.7	6.41	1711	-233.1	0.84
1326	3.40	10.0	6.39	1710	-227.6	0.85
1330	3.90	10.3	6.38	1704	-224.0	0.87
1334	4.25	9.8	6.39	1717	-220.2	0.87
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						
1338		9.9	6.39	1710	-217.8	0.88

FIELD REMARKS: Initial drawdow - 42.30'

Final Drawdown 42.34'

FIELD SAMPLE DATA SHEET Page 1 of 1

Project Name: Old Landfill Groundwater Monitoring

WELL/STATION CLK-1 DATE 10/22/09 TIME 13:55

SAMPLERS BSB/S WEATHER CONDITIONS P. cloudy, 50's, windy

PHOTO: Yes ____ No X ROLL# ____ NUMBER ____

PURGE DATA:

PURGE METHOD 12 Volt pump w/ valve

START PURGING 14:00

PURGE RATE ____ GPM

RATE CHANGE 1) Time ____ Rate ____

2) Time ____ Rate ____

SAMPLE TIME 1505

WELL DEPTH 19.00 Feet

DEPTH TO WATER 5.57 Feet

COLUMN DEPTH 13.43 Feet

CASING DIAMETER 2 Inch

PUMP SET AT 15 Feet

3 WELL VOLUMES 6.7 Gallons

TOTAL PURGE VOLUME 5 Gallons

SAMPLE DATA:

SAMPLE #	VOLUME	CHECK IF FILTERED	PRES.	ANALYSIS REQUESTED
BSB-GW-05	1 Liter	✓	HNO_3	Dissolved Metals- TAL
BSB-GW-05	1 Liter		Raw	pH, SC, Cl⁻, SO_4^{-2}
	1 Liter			
	1 Liter			
	1 Liter			

FIELD PARAMATERS:

TIME	Amount Purged	Temp C	pH	S.C. um/cm	EH mv	D.O. mg/l
1415	~1.25	11.2	6.34	2003	-205.5	1.05
1419		11.5	6.35	1997	-202.4	1.17
1424	1.75	11.6	6.35	2014	-203.4	1.01
1428	2	10.9	6.36	2022	-202.8	1.07
1433	2.5	11.3	6.35	2021	-202.3	1.05
1437	2.75	11.5	6.36	2007	-194.7	1.22
1441	3.25	11.8	6.36	2005	-190.2	1.28
1445		11.8	6.36	2010	-192.8	1.15
1449	3.75	11.5	6.36	2025	-191.5	1.30
FINAL FIELD PARAMETERS PRIOR TO SAMPLING						

FIELD REMARKS: Initial Draw Down - 5.65'

Final Drawdown - 5.64'

~~Pioneer Technical Services~~

7.71 7.78
5.57 2.14
7.14 5.64

Old Butte-Silver Bow County Landfill
GROUNDWATER FIELD CHEMISTRY RESULTS AND PURGE VOLUMES
October-09

Well I.D.	Sample #	Depth (ft)	Radius (ft)	S.W.L. (ft)	TOC Elevation (ft)	Groundwater Elevation (ft)	pH. (su)	E.h. (mV)	S.C. (uS/cm)	T (Celsius)	Sample Time	H2O Volume Req'd (gal)	H2O Volume Purged (gal)	Comments
MBMG-2	BSB-GW-01	23.25	0.17	14.58	5529.88	5515.30	7.07	80.4	829	9.6	11:54	4.34	5.00	
BSB-A1	BSB-GW-02	57.00	0.17	38.79	5531.50	5492.71	7.10	-228.0	432	11.1	14:30	9.11	2.00	
BSB-A5	BSB-GW-03	45.60	0.17	44.00	5524.62	5480.62	5.82	-150.2	1172	8.8	15:53	0.80	1.00	
BSB-A6-R	BSB-GW-04	59.75	0.17	52.45	5554.41	5501.96	6.25	53.9	2178	11.2	11:00	3.65	1.30	
BSB-A6-R	BSB-GW-07	59.75	0.17	NA	5554.41	NA	NA	NA	NA	NA	NA	NA	NA	VOC Duplicate
CLK-1	BSB-GW-05	19.00	0.17	5.57	5478.73	5473.16	6.35	-198.1	2037	11.5	15:05	6.72	5.00	
CLK-2	BSB-GW-06	46.90	0.17	41.42	5511.17	5469.75	6.39	-217.8	1710	9.9	13:38	2.74	5.00	
CLK-2	BSB-GW-08	46.90	0.17	NA	5511.17	NA	NA	NA	NA	NA	NA	NA	NA	Raw, DM Duplicate
Blank	BSB-GW-09	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	Field Blank

KEY:

NA	Measurement Not Taken
SA	Sample Not Taken

10/21/09 Old Landfill

B. Hollamon } PTS
J. Flammang

Meter Calibration:

pH 4.01 - 4.04 SLP-96.6
7.00 - 7.06
10.01 - 10.03

SC - 1413 std → 1414 uS/cm @17.98

Eh ~~24~~ 264.8 mv - Zoebells

DO Calibrated for 5400'

10:30 Arrive at MBMG-2
DTW - 14.58' IPVC, TD - 23.25'
column - 8.67', 2" - dia.
3 Well Vol. - 4.34 gal.

11:05 Begin purging w/
12 volt variable speed pump
purging at 0.39 L/min
Initial drawdown 14.72'

Final drawdown 14.78'
Purged 5 gallons total.

11:54 BSB - GW - 01

250 ml HDPE Filt/HNO3 - DM TAL
1L HDPE Raw - pH, SC, Cl, SO4-2
250 ml HDPE - H2SO4 - NO2/NO3, COD
250 ml HDPE - NaOH - Cyanide
2 - Amber Glass - Raw - 8270
2 - Amberglass - Raw - 8151
3 - 40 ml VOA vials - HCl - 8260

12:30 Arrive at BSB-A1
DTW - 38.79 IPVC, TD - 57.00'
Column - 18.21', 2" - dia.
3 Well Vol. - 9.1 gal.

12:55 Begin purging
w/ variable speed 12 volt
pump, will not pull water
to surface. Switch to
12 volt pump w/ value to
control flow.
13:20 begin purging

BSB-A1 (cont.)

at 0.1 LPM.
Initial drawdown 39.32'

14:38 BSB-GW-02

250ml HDPE, NaOH - Cyanide
250ml HDPE, H_2SO_4 - NO_2/NO_3, COD
1L HDPE, Raw: pH, SC, Cl^-, SO_4^{-2}
2-1L Amberglass, Raw - 8270
2-1L Amberglass, Raw - 8151
3-40ml VOA vials - 8260

Final drawdown - 39.48'
Purged 2 gallons total.

1415 Arrive at BSB-W5
DTW - 44.00', TD - 45.60'
column - 1.60', 2"-dia
3 Well Vol. - 0.8 gal
Purged 1 gallon w/ disposable bailer.
Well was bailed ~~do~~ to limited water column for pump.

15:53 BSB-GW-03

250ml HDPE, NaOH - Cyanide
250ml HDPE, H_2SO_4 - NO_2/NO_3, COD
1L Raw, HDPE - pH, SC, Cl^-, SO_4^{-2}
2-1L Amberglass, Raw - 8151
2-1L Amberglass, Raw - 8270
3-40ml VOA vials, HCl - 8260

10/22/09 Old Landfill

Meter

pH 4.01 - 4.05
7.00 - 7.08
10.01 - 10.06

SC 1413 std → 1421 uS/cm @ 10.9°C

Eh Zoebells → 244.1 mv

DO Calibrated for 5400'

9:30 Arrive at BSB-A6R
DTW - 52.45, TD - 59.75
column - 7.3, 2" dia.
3 Well Vol. - 3.65 gal.

9:50 Begin purging w/ 12 volt pump + valve to restrict flow.
purging at 0.07 Lpm
Purged 1.3 gallons total.
Initial drawdown - 52.78'
Final drawdown -

1100 BSB-GW-04

~~250ml~~ 1L HDPE, Raw - pH, SC, Cl^-, SO_4^{-2}
TSA
250ml HDPE, NaOH - Cyanide
250ml HDPE, H_2SO_4 - NO_2/NO_3, COD
2-1L Amberglass, Raw - 8270
2-1L Amberglass, Raw - 8151
3-40ml VOA Vials, HCl - 8260

methane monitoring F/ + BSB Guy

1054 Garage Bldg

Ambient Air

CH_4	CO_2	~~Temp~~ O_2	BP -
0.0%	0.0%	20.8%	827

Garage

CH_4	CO_2	O_2	BP
0.0%	0.0%	20.7%	827

Storage Bldg

	CH_4	CO_2	Temp	BP
	0.0%	0.0%	20.8%	827
Ambient Air	0.0%	0.0%	20.8%	827
Concessions area + 2 floor drains	0.0%	0.0%	20.8%	827
Ambient Air - Finished 1108	0.0%	0.0%	20.8%	827

10/22/09

12:45 Arrive at CLK-2
DTW - 41.42 , TD - 46.90
Column - 5.48 , 2''-dia.
3 Well Vol. - 2.74

12:55 Begin purging w/ 12 volt pump w/ valve. Purging at 0.116 gpm. Purged 5 gallons Total. Pump set at 45'

13:38 BSB-GW-06

1L-HDPE, Raw-pH, SC, Cl^-, SO_4^{-2}
250ml HDPE, Filt/HNO_3-DM TAL.

Initial drawdown - 42.30'
Final drawdown - 42.34'

Pull pump + decon

13:55 Arrive at CLK-1
DTW - 5.57 , TD - 19.00'
Column - 13.43 , 2''-dia.
3 Well Vol. - 6.7 gal

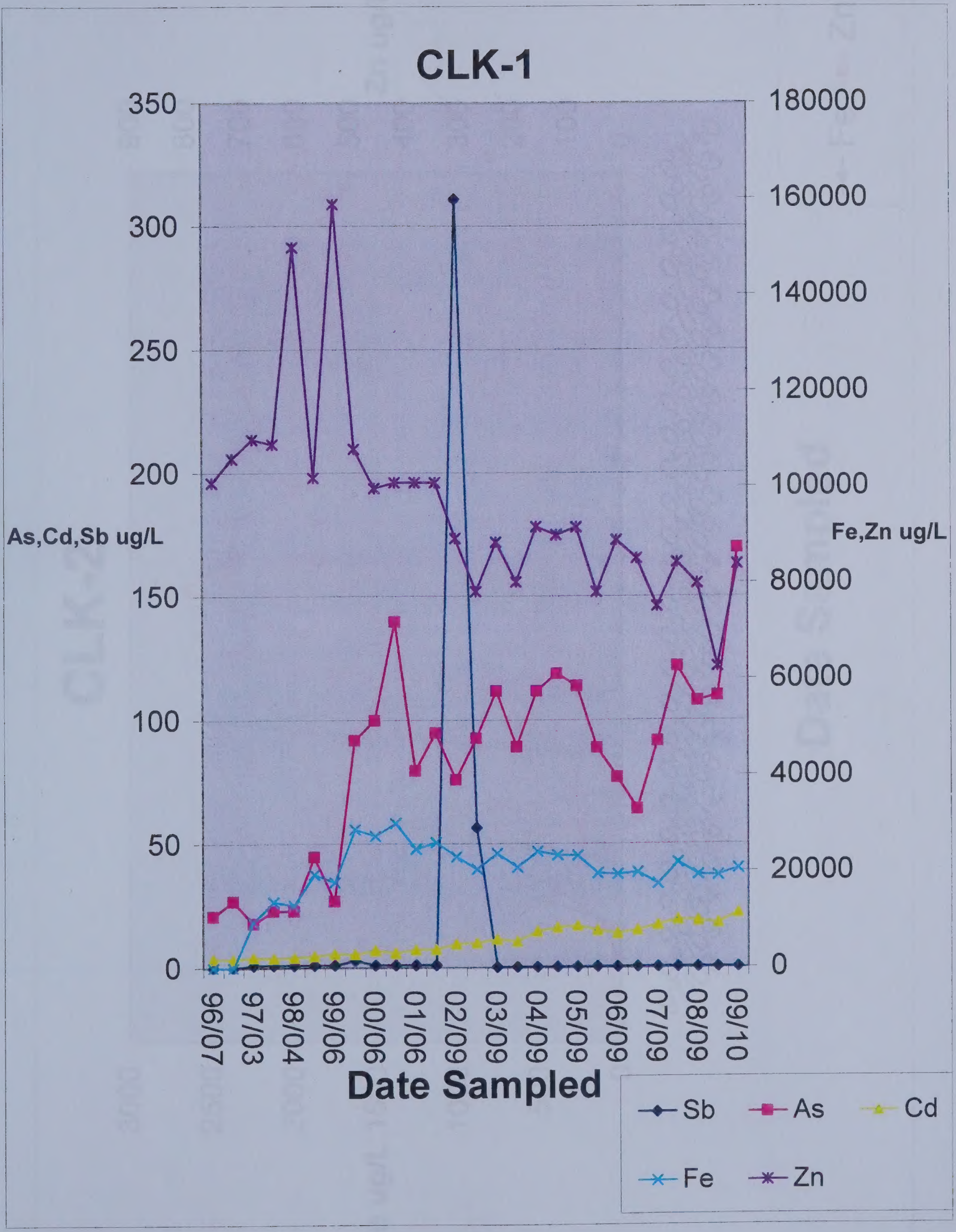
14:00 Begin purging w/ 12 volt pump w/ valve, pump set at 15', purging at 0.077 gpm. Purged 5 total gallons
Initial drawdown BH ~~7.79'~~ 5.65
Final drawdown - 5.64

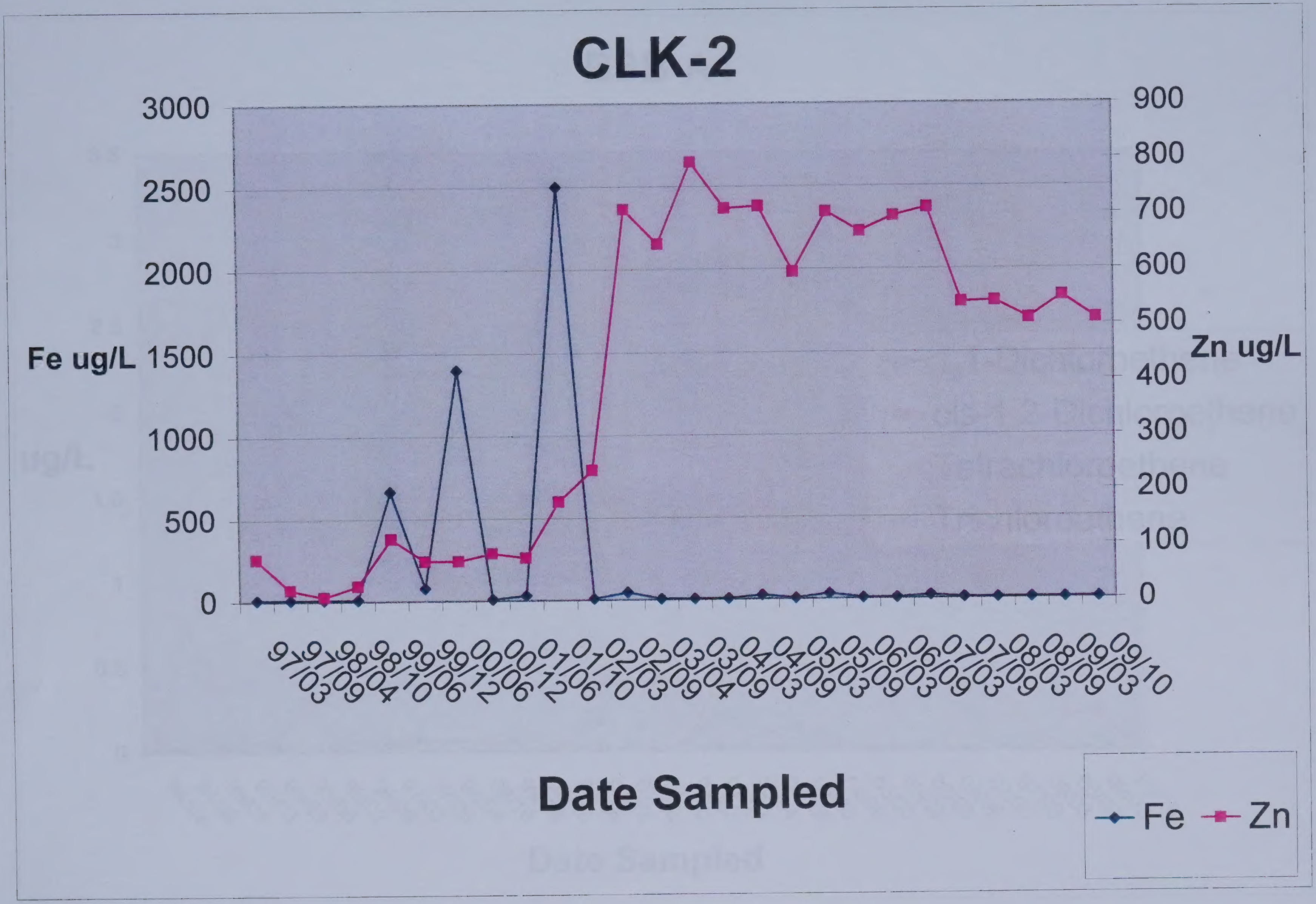
15:05 BSB-GW-05

1L-HDPE, Raw-pH, SC, Cl^-, SO_4^{-2}
250ml-HDPE, Filt./HNO_3-DM

Pull pump + decon.

15:45 Shipped 3 coolers Fed Ex overnight.


CLK-1
As,Cd,Sb ug/L
350
300
250
200
150
100
50
0
Fe,Zn ug/L
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
96/07
97/03
98/04
99/06
00/06
01/06
02/09
03/09
04/09
05/09
06/09
07/09
08/09
09/10
Date Sampled
Sb
As
Cd
Fe
Zn


CLK-2
Fe ug/L
3000
2500
2000
1500
1000
500
0
Zn ug/L
900
800
700
600
500
400
300
200
100
0
97/03
97/09
98/04
98/10
99/06
99/12
00/06
00/12
01/06
01/10
02/03
02/09
03/04
03/09
04/03
04/09
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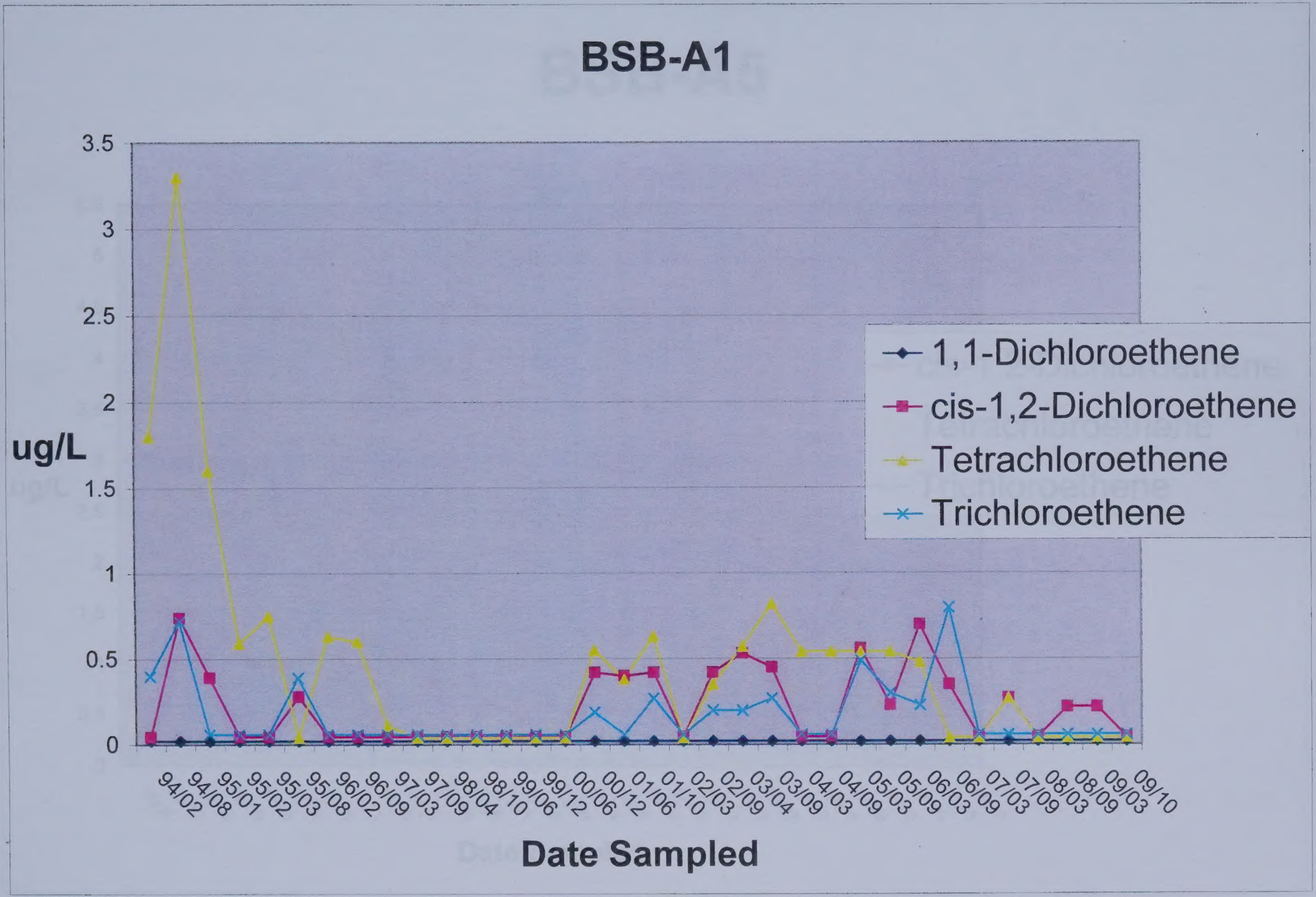
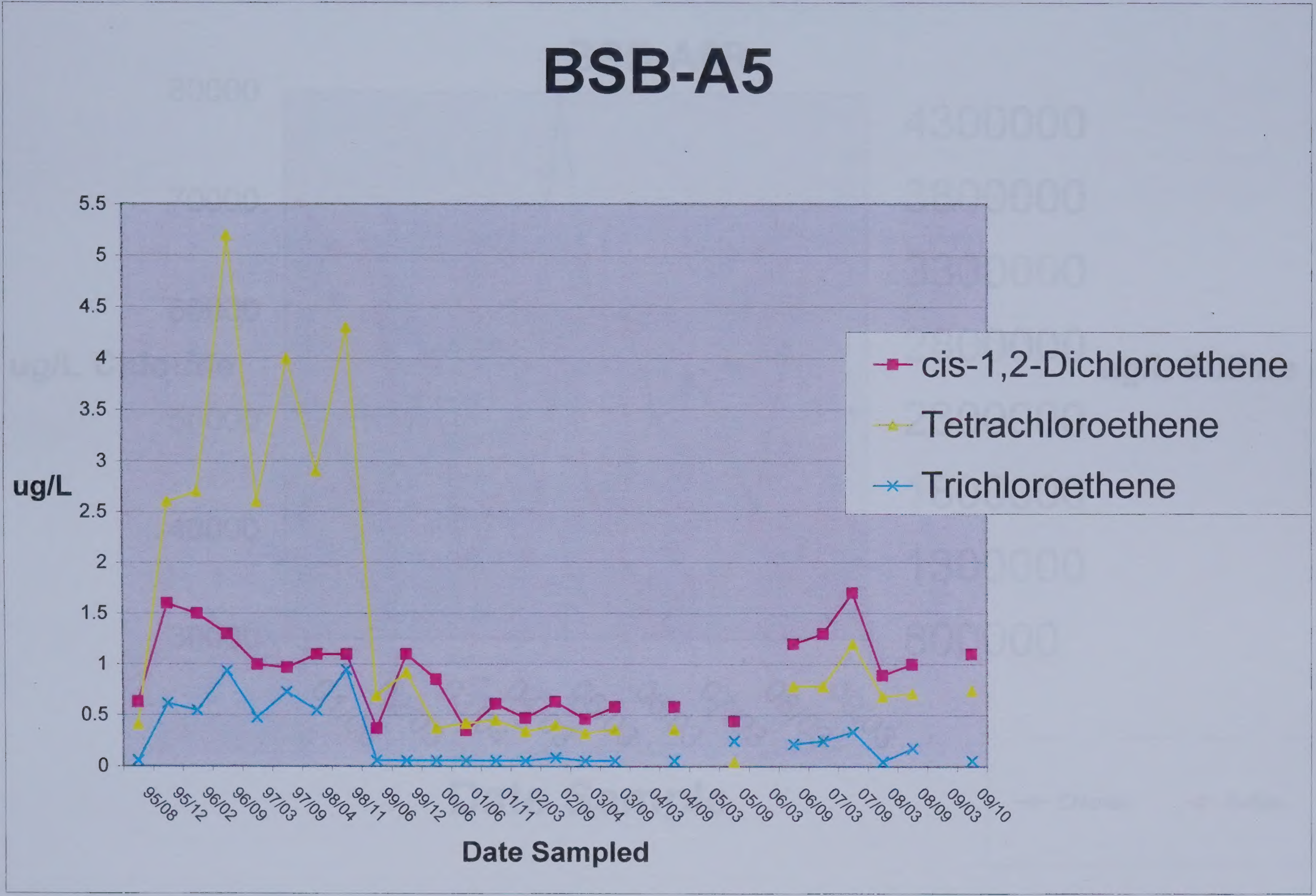
09/03
09/10
Date Sampled
Fe
Zn


BSB-A1
ug/L
3.5
3
2.5
2
1.5
1
0.5
0
94/02
94/08
95/01
95/02
95/03
95/08
96/02
96/09
97/03
97/09
98/04
98/10
99/06
99/12
00/06
00/12
01/06
01/10
02/03
02/09
03/04
03/09
04/03
04/09
05/03
05/09
06/03
06/09
07/03
07/09
08/03
08/09
09/03
09/10
Date Sampled
1,1-Dichloroethene
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene


BSB-A5
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
ug/L
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
95/08
95/12
96/02
96/09
97/03
97/09
98/04
98/11
99/06
99/12
00/06
01/06
01/11
02/03
02/09
03/04
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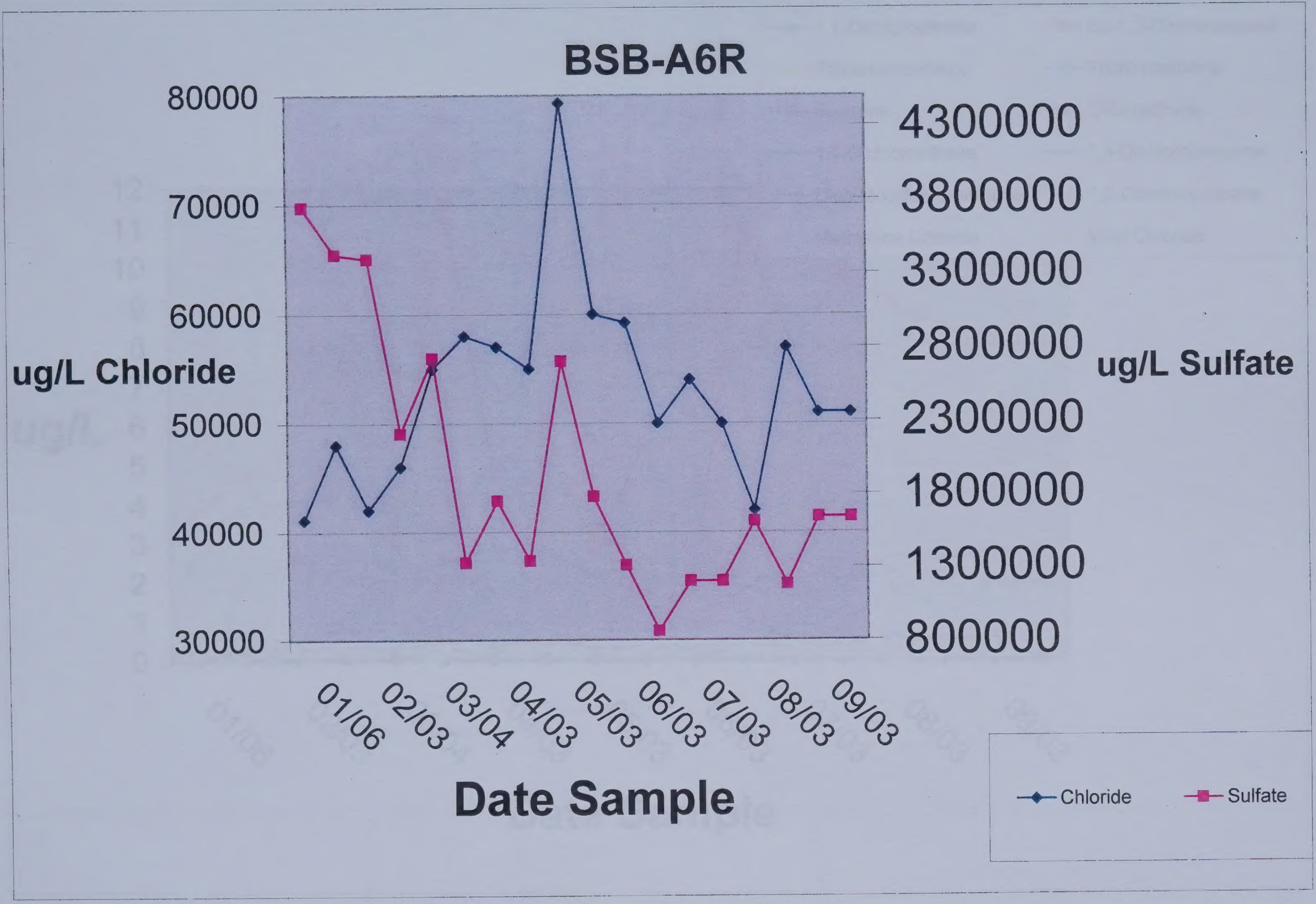
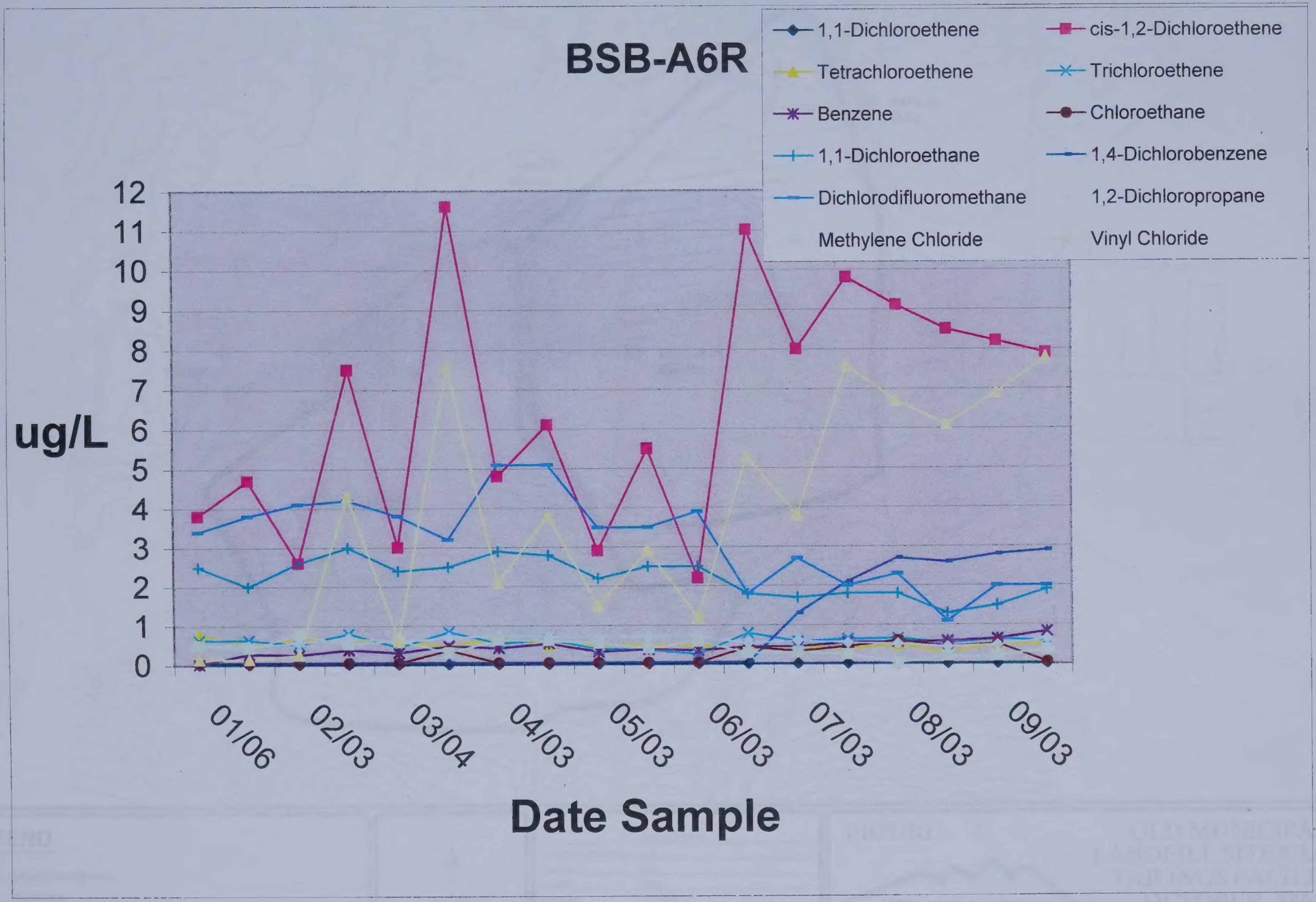
08/09
09/03
09/10
Date Sampled


BSB-A6R
80000
70000
60000
50000
40000
30000
ug/L Chloride
4300000
3800000
3300000
2800000
2300000
1800000
1300000
800000
ug/L Sulfate
01/06
02/03
03/04
04/03
05/03
06/03
07/03
08/03
09/03
Date Sample
Chloride
Sulfate


BSB-A6R
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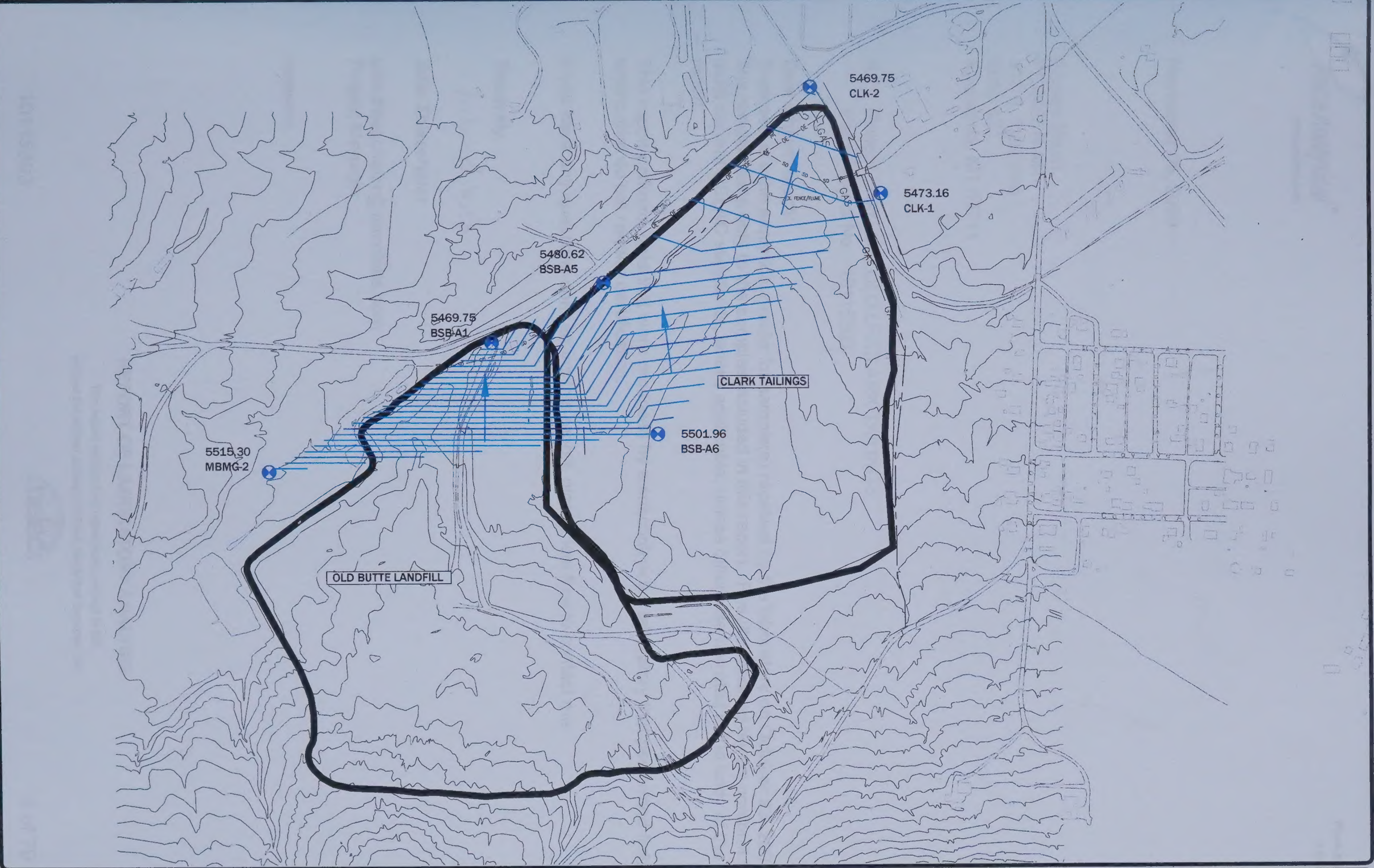
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
Benzene
Chloroethane
1,1-Dichloroethane
1,4-Dichlorobenzene
Dichlorodifluoromethane
1,2-Dichloropropane
Methylene Chloride
Vinyl Chloride
ug/L
12
11
10
9
8
7
6
5
4
3
2
1
0
01/06
02/03
03/04
04/03
05/03
06/03
07/03
08/03
09/03
Date Sample


5469.75
CLK-2
5473.16
CLK-1
5480.62
BSB-A5
5469.75
BSB-A1
CLARK TAILINGS
5501.96
BSB-A6
5515.30
MBMG-2
OLD BUTTE LANDFILL
GAS
EX. FENCE/FLUME

LEGEND

CLK-1 MONITORING WELL

CONTOUR

CONTOUR INTERVAL= 10'

	DISPLAYED AS:
COORD SYS/ZONE:	NA
DATUM:	NA
UNITS:	FEET
SOURCE:	PIONEER

SCALE IN FEET
0 300 600

FIGURE 1

OLD MUNICIPAL LANDFILL SITE/CLARK TAILINGS FACILITY OCTOBER 2009

PIONEER
TECHNICAL SERVICES, INC.
63-1/2 WEST BROADWAY
BUTTE, MONTANA 59701
(406) 782-5177

DATE: 1/20/10

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

November 05, 2009

Shawn Bisch
PIONEER-MT
307 E. Park Ave
Suite 421
Anaconda, MT 59711

RE: Project: 7002 000 OLD LF /CLARK TAILINGS
Pace Project No.: 10115393

Dear Shawn Bisch:

Enclosed are the analytical results for sample(s) received by the laboratory on October 23, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

This report contains data that were produced by a subcontracted laboratory that performed fields of testing that do not require certification.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julie Thieschafer

julie.thieschafer@pacelabs.com
Project Manager

Enclosures

CERTIFICATIONS

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Minnesota Certification IDs

1700 Elm Street SE, Suite 200 Minneapolis, MN 55414
Wisconsin Certification #: 999407970
Alaska Certification #: UST-078
Arizona Certification #: AZ-0014
California Certification #: 01155CA
Florida/NELAP Certification #: E87605
Illinois Certification #: 200011
Iowa Certification #: 368
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Minnesota Certification #: 027-053-137
Montana Certification #: MT CERT0092
New Jersey Certification #: MN-002
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647

Green Bay Certification IDs

North Carolina Certification #: 503
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
1241 Bellevue Street Green Bay, WI 54302
California Certification #: 09268CA
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11887
New York Certification #: 11888
Florida/NELAP Certification #: E87948

SAMPLE SUMMARY

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10115393001	**BSB-GW-01**	Water	10/21/09 11:45	10/23/09 10:06
10115393002	**BSB-GW-02**	Water	10/21/09 14:38	10/23/09 10:06
10115393003	**BSB-GW-03**	Water	10/21/09 15:53	10/23/09 10:06
10115393004	**BSB-GW-04**	Water	10/22/09 11:00	10/23/09 10:06
10115393005	**TRIP BLANK**	Water	10/21/09 00:00	10/23/09 10:06

SAMPLE ANALYTE COUNT

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10115393001	**BSB-GW-01**	ASTM D516-02	ACH	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		EPA 200.8	RJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		EPA 335.4	DAW	1	PASI-G
		EPA 353.2	ACH	1	PASI-M
		EPA 410.4	MWD	1	PASI-M
		EPA 8260	DJT	55	PASI-M
		SM 4500-Cl E	ACH	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
10115393002	**BSB-GW-02**	ASTM D516-02	ACH	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		EPA 335.4	DAW	1	PASI-G
		EPA 353.2	ACH	1	PASI-M
		EPA 410.4	MWD	1	PASI-M
		EPA 8260	DJT	55	PASI-M
		SM 4500-Cl E	ACH	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
10115393003	**BSB-GW-03**	ASTM D516-02	ACH	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		EPA 335.4	DAW	1	PASI-G
		EPA 353.2	ACH	1	PASI-M
		EPA 410.4	MWD	1	PASI-M
		EPA 8260	DJT	55	PASI-M
		SM 4500-Cl E	ACH	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
10115393004	**BSB-GW-04**	ASTM D516-02	ACH	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		EPA 335.4	DAW	1	PASI-G
		EPA 353.2	ACH	1	PASI-M
		EPA 410.4	MWD	1	PASI-M
		EPA 8260	DJT	55	PASI-M
		SM 4500-Cl E	ACH	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
10115393005	**TRIP BLANK**	EPA 8260	DJT	55	PASI-M

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PROJECT NARRATIVE

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Method: **EPA 200.8**
Description: 200.8 MET ICPMS, Dissolved
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
1 sample was analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/17960

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10115391001,10115469008

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 702527)
  - Iron, Dissolved
  - Zinc, Dissolved
- MS (Lab ID: 702529)
  - Barium, Dissolved
  - Zinc, Dissolved
- MSD (Lab ID: 702528)
  - Iron, Dissolved
  - Zinc, Dissolved

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

PROJECT NARRATIVE

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Method: **EPA 200.8**
Description: 200.8 MET ICPMS, Dissolved
Client: BPAR-PIONEER-MT
Date: November 05, 2009

Additional Comments:

PROJECT NARRATIVE

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Method: **EPA 245.1**
Description: 245.1 Mercury, Dissolved
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
1 sample was analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MERP/3943

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10115391001,10115469016

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 702500)
  - Mercury, Dissolved
- MS (Lab ID: 702502)
  - Mercury, Dissolved
- MSD (Lab ID: 702501)
  - Mercury, Dissolved

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Method: **EPA 8260**
Description: 8260 MSV
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
5 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/13299

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10115255001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 703198)
    - 1,1,2,2-Tetrachloroethane
    - 1,2-Dibromo-3-chloropropane
    - trans-1,4-Dichloro-2-butene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Method: **EPA 120.1**
Description: 120.1 Specific Conductance
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
4 samples were analyzed for EPA 120.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project:	7002 000 OLD LF/CLARK TAILINGS
Pace Project No.:	10115393

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
4 samples were analyzed for SM 4500-H+B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated more than 15 minutes after sample collection.
- BSB-GW-01 (Lab ID: 10115393001)
- BSB-GW-02 (Lab ID: 10115393002)
- BSB-GW-03 (Lab ID: 10115393003)
- BSB-GW-04 (Lab ID: 10115393004)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Method: **ASTM D516-02**
Description: ASTM D516-90 Sulfate Water
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
4 samples were analyzed for ASTM D516-02. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/8573

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10115322002,10115393001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 706071)
  - Sulfate
- MS (Lab ID: 706073)
  - Sulfate
- MSD (Lab ID: 706072)
  - Sulfate

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Method: **EPA 335.4**
Description: 335.4 Cyanide, Total
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
4 samples were analyzed for EPA 335.4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/5086

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10115078001,4024427002

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 226242)
  - Cyanide
- MSD (Lab ID: 226243)
  - Cyanide

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project:	7002 000 OLD LF/CLARK TAILINGS
Pace Project No.:	10115393

Method:	**EPA 353.2**
Description:	353.2 Nitrate + Nitrite pres.
Client:	BPAR-PIONEER-MT
Date:	November 05, 2009

General Information:
4 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project:	7002 000 OLD LF/CLARK TAILINGS
Pace Project No.:	10115393

Method: **EPA 410.4**
Description: 410.4 COD
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
4 samples were analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project:	7002 000 OLD LF/CLARK TAILINGS
Pace Project No.:	10115393

Method: **SM 4500-Cl E**
Description: SM4500Cl-E Chloride
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
4 samples were analyzed for SM 4500-Cl E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Sample: BSB-GW-01 **Lab ID: 10115393001** Collected: 10/21/09 11:45 Received: 10/23/09 10:06 Matrix: Water

MBMG-2

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Antimony, Dissolved	ND	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:43	7440-36-0	
Arsenic, Dissolved	**0.0014**	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:43	7440-38-2	
Barium, Dissolved	**0.14**	mg/L	0.00030	0.00015	1	11/02/09 12:31	11/03/09 00:43	7440-39-3	
Beryllium, Dissolved	ND	mg/L	0.00020	0.00010	1	11/02/09 12:31	11/03/09 19:34	7440-41-7	
Cadmium, Dissolved	**0.000053J**	mg/L	0.000080	0.000040	1	11/02/09 12:31	11/03/09 00:43	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:43	7440-47-3	
Cobalt, Dissolved	ND	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:43	7440-48-4	
Copper, Dissolved	**0.0012**	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:43	7440-50-8	
Iron, Dissolved	ND	mg/L	0.050	0.025	1	11/02/09 12:31	11/03/09 00:43	7439-89-6	
Lead, Dissolved	**0.00047**	mg/L	0.00010	0.000050	1	11/02/09 12:31	11/03/09 00:43	7439-92-1	
Nickel, Dissolved	**0.00042J**	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:43	7440-02-0	
Selenium, Dissolved	**0.00066**	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:43	7782-49-2	
Silver, Dissolved	**0.000034J**	mg/L	0.00050	0.000026	1	11/02/09 12:31	11/03/09 00:43	7440-22-4	
Thallium, Dissolved	ND	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:43	7440-28-0	
Vanadium, Dissolved	**0.0067**	mg/L	0.00010	0.000050	1	11/02/09 12:31	11/03/09 00:43	7440-62-2	
Zinc, Dissolved	**0.0052**	mg/L	0.0050	0.0025	1	11/02/09 12:31	11/03/09 00:43	7440-66-6	
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	ND	mg/L	0.00020	0.00010	1	10/29/09 19:39	11/03/09 10:55	7439-97-6	
8260 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	10.0	5.0	1		10/26/09 15:30	67-64-1	
Acetonitrile	ND	ug/L	40.0	20.0	1		10/26/09 15:30	75-05-8	
Benzene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		10/26/09 15:30	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		10/26/09 15:30	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		10/26/09 15:30	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		10/26/09 15:30	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		10/26/09 15:30	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		10/26/09 15:30	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	2.0	1		10/26/09 15:30	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		10/26/09 15:30	75-00-3	
Chloroform	ND	ug/L	1.0	0.50	1		10/26/09 15:30	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		10/26/09 15:30	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		10/26/09 15:30	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		10/26/09 15:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		10/26/09 15:30	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.50	1		10/26/09 15:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		10/26/09 15:30	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.50	1		10/26/09 15:30	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 15:30	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 15:30	107-06-2	

ANALYTICAL RESULTS

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Sample: BSB-GW-01 **Lab ID: 10115393001** Collected: 10/21/09 11:45 Received: 10/23/09 10:06 Matrix: Water

MBMG-2

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		10/26/09 15:30	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		10/26/09 15:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		10/26/09 15:30	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		10/26/09 15:30	591-78-6	
Iodomethane	ND	ug/L	4.0	0.035	1		10/26/09 15:30	74-88-4	
Methylene Chloride	ND	ug/L	4.0	0.36	1		10/26/09 15:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		10/26/09 15:30	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		10/26/09 15:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		10/26/09 15:30	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 15:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		10/26/09 15:30	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		10/26/09 15:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		10/26/09 15:30	96-18-4	
Vinyl acetate	ND	ug/L	20.0	0.22	1		10/26/09 15:30	108-05-4	
Vinyl chloride	ND	ug/L	0.40	0.20	1		10/26/09 15:30	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		10/26/09 15:30	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		10/26/09 15:30	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		10/26/09 15:30	95-47-6	
1,2-Dichloroethane-d4 (S)	108	%	75-125		1		10/26/09 15:30	17060-07-0	
Dibromofluoromethane (S)	109	%	75-125		1		10/26/09 15:30	1868-53-7	
4-Bromofluorobenzene (S)	101	%	75-125		1		10/26/09 15:30	460-00-4	
Toluene-d8 (S)	93	%	75-125		1		10/26/09 15:30	2037-26-5	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**863**	umhos/cm	1.0	0.50	1		10/28/09 16:50		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**7.0**	Std. Units	0.10		1		10/26/09 16:55		H6
335.4 Cyanide, Total	Analytical Method: EPA 335.4								
Cyanide	ND	mg/L	0.020	0.0080	1		10/27/09 14:26	57-12-5	
353.2 Nitrate + Nitrite pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**6.7**	mg/L	0.10	0.050	1		10/30/09 09:37		
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	ND	mg/L	50.0	25.0	1		10/30/09 16:30		

ANALYTICAL RESULTS

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Sample: BSB-GW-01 Lab ID: **10115393001** Collected: 10/21/09 11:45 Received: 10/23/09 10:06 Matrix: Water

MBMG-2

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**175**	mg/L	25.0	12.5	10		11/02/09 13:40	14808-79-8	M0
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**59.7**	mg/L	2.0	1.0	1		10/29/09 16:50	16887-00-6	

ANALYTICAL RESULTS

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Sample: BSB-GW-02 **Lab ID: 10115393002** Collected: 10/21/09 14:38 Received: 10/23/09 10:06 Matrix: Water

BSB-A1

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	10.0	5.0	1		10/26/09 15:50	67-64-1	
Acetonitrile	ND	ug/L	40.0	20.0	1		10/26/09 15:50	75-05-8	
Benzene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		10/26/09 15:50	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		10/26/09 15:50	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		10/26/09 15:50	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		10/26/09 15:50	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		10/26/09 15:50	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		10/26/09 15:50	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	2.0	1		10/26/09 15:50	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		10/26/09 15:50	75-00-3	
Chloroform	ND	ug/L	1.0	0.50	1		10/26/09 15:50	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		10/26/09 15:50	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		10/26/09 15:50	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		10/26/09 15:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		10/26/09 15:50	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.50	1		10/26/09 15:50	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		10/26/09 15:50	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.50	1		10/26/09 15:50	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 15:50	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 15:50	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		10/26/09 15:50	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		10/26/09 15:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		10/26/09 15:50	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		10/26/09 15:50	591-78-6	
Iodomethane	ND	ug/L	4.0	0.035	1		10/26/09 15:50	74-88-4	
Methylene Chloride	ND	ug/L	4.0	0.36	1		10/26/09 15:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		10/26/09 15:50	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		10/26/09 15:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		10/26/09 15:50	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 15:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		10/26/09 15:50	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		10/26/09 15:50	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		10/26/09 15:50	96-18-4	

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ANALYTICAL RESULTS

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Sample: BSB-GW-02 **Lab ID: 10115393002** Collected: 10/21/09 14:38 Received: 10/23/09 10:06 Matrix: Water

BSB-A1

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Vinyl acetate	ND	ug/L	20.0	0.22	1		10/26/09 15:50	108-05-4	
Vinyl chloride	ND	ug/L	0.40	0.20	1		10/26/09 15:50	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		10/26/09 15:50	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		10/26/09 15:50	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		10/26/09 15:50	95-47-6	
1,2-Dichloroethane-d4 (S)	110	%	75-125		1		10/26/09 15:50	17060-07-0	
Dibromofluoromethane (S)	108	%	75-125		1		10/26/09 15:50	1868-53-7	
4-Bromofluorobenzene (S)	100	%	75-125		1		10/26/09 15:50	460-00-4	
Toluene-d8 (S)	95	%	75-125		1		10/26/09 15:50	2037-26-5	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**465**	umhos/cm	1.0	0.50	1		10/28/09 16:50		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.9**	Std. Units	0.10		1		10/26/09 16:55		H6
335.4 Cyanide, Total	Analytical Method: EPA 335.4								
Cyanide	ND	mg/L	0.020	0.0080	1		10/27/09 14:26	57-12-5	
353.2 Nitrate + Nitrite pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**0.41**	mg/L	0.10	0.050	1		10/30/09 09:40		
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	ND	mg/L	50.0	25.0	1		10/30/09 16:30		
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**71.8**	mg/L	12.5	6.2	5		11/02/09 13:32	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**17.6**	mg/L	2.0	1.0	1		11/04/09 10:45	16887-00-6	

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ANALYTICAL RESULTS

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Sample: BSB-GW-03 **Lab ID: 10115393003** Collected: 10/21/09 15:53 Received: 10/23/09 10:06 Matrix: Water

BSB-A5

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	10.0	5.0	1		10/26/09 16:11	67-64-1	
Acetonitrile	ND	ug/L	40.0	20.0	1		10/26/09 16:11	75-05-8	
Benzene	ND	ug/L	1.0	0.50	1		10/26/09 16:11	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		10/26/09 16:11	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		10/26/09 16:11	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		10/26/09 16:11	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		10/26/09 16:11	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		10/26/09 16:11	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		10/26/09 16:11	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	2.0	1		10/26/09 16:11	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 16:11	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		10/26/09 16:11	75-00-3	
Chloroform	ND	ug/L	1.0	0.50	1		10/26/09 16:11	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		10/26/09 16:11	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		10/26/09 16:11	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		10/26/09 16:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		10/26/09 16:11	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.50	1		10/26/09 16:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 16:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 16:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 16:11	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		10/26/09 16:11	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.50	1		10/26/09 16:11	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 16:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 16:11	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 16:11	75-35-4	
cis-1,2-Dichloroethene	**1.1**	ug/L	1.0	0.50	1		10/26/09 16:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 16:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		10/26/09 16:11	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		10/26/09 16:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		10/26/09 16:11	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		10/26/09 16:11	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		10/26/09 16:11	591-78-6	
Iodomethane	ND	ug/L	4.0	0.035	1		10/26/09 16:11	74-88-4	
Methylene Chloride	ND	ug/L	4.0	0.36	1		10/26/09 16:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		10/26/09 16:11	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		10/26/09 16:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		10/26/09 16:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		10/26/09 16:11	79-34-5	
Tetrachloroethene	**0.74J**	ug/L	1.0	0.50	1		10/26/09 16:11	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		10/26/09 16:11	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 16:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		10/26/09 16:11	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 16:11	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		10/26/09 16:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		10/26/09 16:11	96-18-4	

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ANALYTICAL RESULTS

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Sample: BSB-GW-03 **Lab ID: 10115393003** Collected: 10/21/09 15:53 Received: 10/23/09 10:06 Matrix: Water

BSB-A5

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Vinyl acetate	ND	ug/L	20.0	0.22	1		10/26/09 16:11	108-05-4	
Vinyl chloride	ND	ug/L	0.40	0.20	1		10/26/09 16:11	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		10/26/09 16:11	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		10/26/09 16:11	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		10/26/09 16:11	95-47-6	
1,2-Dichloroethane-d4 (S)	110	%	75-125		1		10/26/09 16:11	17060-07-0	
Dibromofluoromethane (S)	108	%	75-125		1		10/26/09 16:11	1868-53-7	
4-Bromofluorobenzene (S)	100	%	75-125		1		10/26/09 16:11	460-00-4	
Toluene-d8 (S)	93	%	75-125		1		10/26/09 16:11	2037-26-5	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**1200**	umhos/cm	1.0	0.50	1		10/28/09 16:50		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**5.6**	Std. Units	0.10		1		10/26/09 16:55		H6
335.4 Cyanide, Total	Analytical Method: EPA 335.4								
Cyanide	ND	mg/L	0.020	0.0080	1		10/27/09 14:27	57-12-5	
353.2 Nitrate + Nitrite pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**3.2**	mg/L	0.10	0.050	1		10/30/09 09:42		
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	**88.3**	mg/L	50.0	25.0	1		10/30/09 16:30		
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**560**	mg/L	75.0	37.5	30		11/02/09 13:54	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**30.4**	mg/L	2.0	1.0	1		11/04/09 10:45	16887-00-6	

ANALYTICAL RESULTS

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Sample: BSB-GW-04 **Lab ID: 10115393004** Collected: 10/22/09 11:00 Received: 10/23/09 10:06 Matrix: Water

BSB-A6R

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	10.0	5.0	1		10/26/09 16:31	67-64-1	
Acetonitrile	ND	ug/L	40.0	20.0	1		10/26/09 16:31	75-05-8	
Benzene	**0.83J**	ug/L	1.0	0.50	1		10/26/09 16:31	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		10/26/09 16:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		10/26/09 16:31	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		10/26/09 16:31	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		10/26/09 16:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		10/26/09 16:31	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		10/26/09 16:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	2.0	1		10/26/09 16:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 16:31	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		10/26/09 16:31	75-00-3	
Chloroform	ND	ug/L	1.0	0.50	1		10/26/09 16:31	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		10/26/09 16:31	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		10/26/09 16:31	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		10/26/09 16:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		10/26/09 16:31	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.50	1		10/26/09 16:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 16:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 16:31	541-73-1	
1,4-Dichlorobenzene	**2.9**	ug/L	1.0	0.50	1		10/26/09 16:31	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		10/26/09 16:31	110-57-6	
Dichlorodifluoromethane	**2.0**	ug/L	1.0	0.50	1		10/26/09 16:31	75-71-8	
1,1-Dichloroethane	**1.9**	ug/L	1.0	0.50	1		10/26/09 16:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 16:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 16:31	75-35-4	
cis-1,2-Dichloroethene	**7.9**	ug/L	1.0	0.50	1		10/26/09 16:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 16:31	156-60-5	
1,2-Dichloropropane	**0.64J**	ug/L	1.0	0.50	1		10/26/09 16:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		10/26/09 16:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		10/26/09 16:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		10/26/09 16:31	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		10/26/09 16:31	591-78-6	
Iodomethane	ND	ug/L	4.0	0.035	1		10/26/09 16:31	74-88-4	
Methylene Chloride	**0.37J**	ug/L	4.0	0.36	1		10/26/09 16:31	75-09-2	Z3
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		10/26/09 16:31	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		10/26/09 16:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		10/26/09 16:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		10/26/09 16:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.50	1		10/26/09 16:31	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		10/26/09 16:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 16:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		10/26/09 16:31	79-00-5	
Trichloroethene	**0.60J**	ug/L	1.0	0.50	1		10/26/09 16:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		10/26/09 16:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		10/26/09 16:31	96-18-4	

ANALYTICAL RESULTS

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Sample: BSB-GW-04 **Lab ID: 10115393004** Collected: 10/22/09 11:00 Received: 10/23/09 10:06 Matrix: Water

BSB-AGR

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Vinyl acetate	ND	ug/L	20.0	0.22	1		10/26/09 16:31	108-05-4	
Vinyl chloride	**7.8**	ug/L	0.40	0.20	1		10/26/09 16:31	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		10/26/09 16:31	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		10/26/09 16:31	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		10/26/09 16:31	95-47-6	
1,2-Dichloroethane-d4 (S)	107	%	75-125		1		10/26/09 16:31	17060-07-0	
Dibromofluoromethane (S)	106	%	75-125		1		10/26/09 16:31	1868-53-7	
4-Bromofluorobenzene (S)	99	%	75-125		1		10/26/09 16:31	460-00-4	
Toluene-d8 (S)	92	%	75-125		1		10/26/09 16:31	2037-26-5	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**2220**	umhos/cm	1.0	0.50	1		10/28/09 16:50		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.1**	Std. Units	0.10		1		10/26/09 16:55		H6
335.4 Cyanide, Total	Analytical Method: EPA 335.4								
Cyanide	ND	mg/L	0.020	0.0080	1		10/27/09 14:28	57-12-5	
353.2 Nitrate + Nitrite pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	0.050	1		10/30/09 09:43		
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	**353**	mg/L	50.0	25.0	1		10/30/09 16:30		
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**1070**	mg/L	125	62.5	50		11/02/09 13:56	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**59.9**	mg/L	2.0	1.0	1		11/04/09 10:46	16887-00-6	

ANALYTICAL RESULTS

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Sample: TRIP BLANK **Lab ID: 10115393005** Collected: 10/21/09 00:00 Received: 10/23/09 10:06 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	10.0	5.0	1		10/26/09 10:42	67-64-1	
Acetonitrile	ND	ug/L	40.0	20.0	1		10/26/09 10:42	75-05-8	
Benzene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.50	1		10/26/09 10:42	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.26	1		10/26/09 10:42	75-27-4	
Bromoform	ND	ug/L	8.0	4.0	1		10/26/09 10:42	75-25-2	
Bromomethane	ND	ug/L	4.0	0.99	1		10/26/09 10:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	4.0	2.0	1		10/26/09 10:42	78-93-3	
Carbon disulfide	ND	ug/L	1.0	0.50	1		10/26/09 10:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	2.0	1		10/26/09 10:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	108-90-7	
Chloroethane	ND	ug/L	1.0	0.50	1		10/26/09 10:42	75-00-3	
Chloroform	ND	ug/L	1.0	0.50	1		10/26/09 10:42	67-66-3	
Chloromethane	ND	ug/L	4.0	2.0	1		10/26/09 10:42	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	0.67	1		10/26/09 10:42	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.50	1		10/26/09 10:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.50	1		10/26/09 10:42	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.50	1		10/26/09 10:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	10.0	0.42	1		10/26/09 10:42	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.50	1		10/26/09 10:42	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 10:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 10:42	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.50	1		10/26/09 10:42	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	4.0	0.15	1		10/26/09 10:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	0.13	1		10/26/09 10:42	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	100-41-4	
2-Hexanone	ND	ug/L	4.0	2.0	1		10/26/09 10:42	591-78-6	
Iodomethane	ND	ug/L	4.0	0.035	1		10/26/09 10:42	74-88-4	
Methylene Chloride	ND	ug/L	4.0	0.36	1		10/26/09 10:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	4.0	2.0	1		10/26/09 10:42	108-10-1	
Styrene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		10/26/09 10:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.50	1		10/26/09 10:42	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	127-18-4	
Toluene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.50	1		10/26/09 10:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.35	1		10/26/09 10:42	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.50	1		10/26/09 10:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.50	1		10/26/09 10:42	96-18-4	

ANALYTICAL RESULTS

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Sample: TRIP BLANK **Lab ID: 10115393005** Collected: 10/21/09 00:00 Received: 10/23/09 10:06 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Vinyl acetate	ND	ug/L	20.0	0.22	1		10/26/09 10:42	108-05-4	
Vinyl chloride	ND	ug/L	0.40	0.20	1		10/26/09 10:42	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1.5	1		10/26/09 10:42	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1.0	1		10/26/09 10:42	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.50	1		10/26/09 10:42	95-47-6	
1,2-Dichloroethane-d4 (S)	101	%	75-125		1		10/26/09 10:42	17060-07-0	
Dibromofluoromethane (S)	104	%	75-125		1		10/26/09 10:42	1868-53-7	
4-Bromofluorobenzene (S)	105	%	75-125		1		10/26/09 10:42	460-00-4	
Toluene-d8 (S)	97	%	75-125		1		10/26/09 10:42	2037-26-5	

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QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

QC Batch: MPRP/17960
QC Batch Method: EPA 200.8
Associated Lab Samples: 10115393001
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET Dissolved

METHOD BLANK: 702525
Matrix: Water
Associated Lab Samples: 10115393001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Arsenic, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Barium, Dissolved	mg/L	ND	0.00030	11/03/09 19:55	
Beryllium, Dissolved	mg/L	ND	0.00020	11/03/09 19:55	
Cadmium, Dissolved	mg/L	ND	0.000080	11/02/09 23:59	
Chromium, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Cobalt, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Copper, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Iron, Dissolved	mg/L	ND	0.050	11/02/09 23:59	
Lead, Dissolved	mg/L	ND	0.00010	11/02/09 23:59	
Nickel, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Selenium, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Silver, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Thallium, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Vanadium, Dissolved	mg/L	ND	0.00010	11/02/09 23:59	
Zinc, Dissolved	mg/L	ND	0.0050	11/02/09 23:59	

LABORATORY CONTROL SAMPLE: 702526

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	.08	0.080	100	85-115	
Arsenic, Dissolved	mg/L	.08	0.078	98	85-115	
Barium, Dissolved	mg/L	.08	0.080	100	85-115	
Beryllium, Dissolved	mg/L	.08	0.083	103	85-115	
Cadmium, Dissolved	mg/L	.08	0.080	100	85-115	
Chromium, Dissolved	mg/L	.08	0.080	99	85-115	
Cobalt, Dissolved	mg/L	.08	0.080	100	85-115	
Copper, Dissolved	mg/L	.08	0.080	100	85-115	
Iron, Dissolved	mg/L	1	1.0	101	85-115	
Lead, Dissolved	mg/L	.08	0.084	105	85-115	
Nickel, Dissolved	mg/L	.08	0.081	101	85-115	
Selenium, Dissolved	mg/L	.08	0.079	99	85-115	
Silver, Dissolved	mg/L	.08	0.080	100	85-115	
Thallium, Dissolved	mg/L	.08	0.080	101	85-115	
Vanadium, Dissolved	mg/L	.08	0.080	100	85-115	
Zinc, Dissolved	mg/L	.08	0.082	103	85-115	

QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 702527 702528

Parameter	Units	10115391001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony, Dissolved	mg/L	ND	.08	.08	0.084	0.083	104	104	70-130	0	20	
Arsenic, Dissolved	mg/L	0.17	.08	.08	0.24	0.24	92	90	70-130	0	20	
Barium, Dissolved	mg/L	0.024	.08	.08	0.11	0.10	102	100	70-130	2	20	
Beryllium, Dissolved	mg/L	0.00050	.08	.08	0.080	0.081	99	101	70-130	1	20	
Cadmium, Dissolved	mg/L	0.022	.08	.08	0.10	0.10	102	102	70-130	1	20	
Chromium, Dissolved	mg/L	ND	.08	.08	0.079	0.078	98	98	70-130	1	20	
Cobalt, Dissolved	mg/L	0.053	.08	.08	0.13	0.13	101	100	70-130	1	20	
Copper, Dissolved	mg/L	0.0031	.08	.08	0.081	0.080	97	96	70-130	1	20	
Iron, Dissolved	mg/L	20.6	1	1	22.5	22.3	189	166	70-130	1	20	M0
Lead, Dissolved	mg/L	0.00019	.08	.08	0.082	0.081	102	101	70-130	1	20	
Nickel, Dissolved	mg/L	0.041	.08	.08	0.12	0.12	102	102	70-130	0	20	
Selenium, Dissolved	mg/L	ND	.08	.08	0.082	0.082	102	103	70-130	0	20	
Silver, Dissolved	mg/L	0.000079J	.08	.08	0.076	0.076	95	95	70-130	0	20	
Thallium, Dissolved	mg/L	ND	.08	.08	0.080	0.078	99	98	70-130	1	20	
Vanadium, Dissolved	mg/L	0.00039	.08	.08	0.081	0.080	100	100	70-130	1	20	
Zinc, Dissolved	mg/L	84.0	.08	.08	72.3	72.0	-14594	-14969	70-130	0	20	M0

MATRIX SPIKE SAMPLE: 702529

Parameter	Units	10115469008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	0.33J ug/L	.08	0.081	101	70-130	
Arsenic, Dissolved	mg/L	0.0044	.08	0.084	100	70-130	
Barium, Dissolved	mg/L	39.8 ug/L	.08	0.15	144	70-130	M0
Beryllium, Dissolved	mg/L	ND	.08	0.082	103	70-130	
Cadmium, Dissolved	mg/L	0.000042J	.08	0.081	102	70-130	
Chromium, Dissolved	mg/L	0.27J ug/L	.08	0.079	98	70-130	
Cobalt, Dissolved	mg/L	1.1 ug/L	.08	0.082	101	70-130	
Copper, Dissolved	mg/L	0.0037	.08	0.085	102	70-130	
Iron, Dissolved	mg/L	0.18	1	1.3	107	70-130	
Lead, Dissolved	mg/L	0.00021	.08	0.082	102	70-130	
Nickel, Dissolved	mg/L	0.54 ug/L	.08	0.083	103	70-130	
Selenium, Dissolved	mg/L	ND	.08	0.083	104	70-130	
Silver, Dissolved	mg/L	ND	.08	0.079	99	70-130	
Thallium, Dissolved	mg/L	ND	.08	0.079	99	70-130	
Vanadium, Dissolved	mg/L	2.1 ug/L	.08	0.082	99	70-130	
Zinc, Dissolved	mg/L	0.014	.08	0.27	317	70-130	M0

QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

QC Batch: MSV/13299 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004, 10115393005

METHOD BLANK: 702422 Matrix: Water
Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004, 10115393005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	10/26/09 09:40	
1,1,1-Trichloroethane	ug/L	ND	1.0	10/26/09 09:40	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/26/09 09:40	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/26/09 09:40	
1,1-Dichloroethane	ug/L	ND	1.0	10/26/09 09:40	
1,1-Dichloroethene	ug/L	ND	1.0	10/26/09 09:40	
1,2,3-Trichloropropane	ug/L	ND	1.0	10/26/09 09:40	
1,2-Dibromo-3-chloropropane	ug/L	ND	4.0	10/26/09 09:40	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	10/26/09 09:40	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/26/09 09:40	
1,2-Dichloroethane	ug/L	ND	1.0	10/26/09 09:40	
1,2-Dichloropropane	ug/L	ND	1.0	10/26/09 09:40	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/26/09 09:40	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/26/09 09:40	
2-Butanone (MEK)	ug/L	ND	4.0	10/26/09 09:40	
2-Hexanone	ug/L	ND	4.0	10/26/09 09:40	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	4.0	10/26/09 09:40	
Acetone	ug/L	ND	10.0	10/26/09 09:40	
Acetonitrile	ug/L	ND	40.0	10/26/09 09:40	
Benzene	ug/L	ND	1.0	10/26/09 09:40	
Bromochloromethane	ug/L	ND	1.0	10/26/09 09:40	
Bromodichloromethane	ug/L	ND	1.0	10/26/09 09:40	
Bromoform	ug/L	ND	8.0	10/26/09 09:40	
Bromomethane	ug/L	ND	4.0	10/26/09 09:40	
Carbon disulfide	ug/L	ND	1.0	10/26/09 09:40	
Carbon tetrachloride	ug/L	ND	1.0	10/26/09 09:40	
Chlorobenzene	ug/L	ND	1.0	10/26/09 09:40	
Chloroethane	ug/L	ND	1.0	10/26/09 09:40	
Chloroform	ug/L	ND	1.0	10/26/09 09:40	
Chloromethane	ug/L	ND	4.0	10/26/09 09:40	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/26/09 09:40	
cis-1,3-Dichloropropene	ug/L	ND	4.0	10/26/09 09:40	
Dibromochloromethane	ug/L	ND	1.0	10/26/09 09:40	
Dibromomethane	ug/L	ND	1.0	10/26/09 09:40	
Dichlorodifluoromethane	ug/L	ND	1.0	10/26/09 09:40	
Ethylbenzene	ug/L	ND	1.0	10/26/09 09:40	
Iodomethane	ug/L	ND	4.0	10/26/09 09:40	
m&p-Xylene	ug/L	ND	2.0	10/26/09 09:40	
Methylene Chloride	ug/L	ND	4.0	10/26/09 09:40	
o-Xylene	ug/L	ND	1.0	10/26/09 09:40	
Styrene	ug/L	ND	1.0	10/26/09 09:40	
Tetrachloroethene	ug/L	ND	1.0	10/26/09 09:40	
Toluene	ug/L	ND	1.0	10/26/09 09:40	

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QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

METHOD BLANK: 702422 Matrix: Water

Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004, 10115393005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/26/09 09:40	
trans-1,3-Dichloropropene	ug/L	ND	4.0	10/26/09 09:40	
trans-1,4-Dichloro-2-butene	ug/L	ND	10.0	10/26/09 09:40	
Trichloroethene	ug/L	ND	1.0	10/26/09 09:40	
Trichlorofluoromethane	ug/L	ND	1.0	10/26/09 09:40	
Vinyl acetate	ug/L	ND	20.0	10/26/09 09:40	
Vinyl chloride	ug/L	ND	0.40	10/26/09 09:40	
Xylene (Total)	ug/L	ND	3.0	10/26/09 09:40	
1,2-Dichloroethane-d4 (S)	%	96	75-125	10/26/09 09:40	
4-Bromofluorobenzene (S)	%	100	75-125	10/26/09 09:40	
Dibromofluoromethane (S)	%	101	75-125	10/26/09 09:40	
Toluene-d8 (S)	%	100	75-125	10/26/09 09:40	

LABORATORY CONTROL SAMPLE: 702423

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.7	103	75-125	
1,1,1-Trichloroethane	ug/L	50	51.3	103	75-125	
1,1,2,2-Tetrachloroethane	ug/L	50	53.6	107	75-125	
1,1,2-Trichloroethane	ug/L	50	50.1	100	75-125	
1,1-Dichloroethane	ug/L	50	49.4	99	75-125	
1,1-Dichloroethene	ug/L	50	47.1	94	69-129	
1,2,3-Trichloropropane	ug/L	50	50.9	102	72-126	
1,2-Dibromo-3-chloropropane	ug/L	50	53.6	107	67-125	
1,2-Dibromoethane (EDB)	ug/L	50	50.4	101	75-125	
1,2-Dichlorobenzene	ug/L	50	52.7	105	75-125	
1,2-Dichloroethane	ug/L	50	46.9	94	75-125	
1,2-Dichloropropane	ug/L	50	51.1	102	75-125	
1,3-Dichlorobenzene	ug/L	50	53.2	106	75-125	
1,4-Dichlorobenzene	ug/L	50	51.5	103	75-125	
2-Butanone (MEK)	ug/L	50	47.1	94	51-134	
2-Hexanone	ug/L	50	51.4	103	53-141	
4-Methyl-2-pentanone (MIBK)	ug/L	50	55.9	112	60-125	
Acetone	ug/L	125	114	91	38-125	
Acetonitrile	ug/L	500	496	99	67-125	
Benzene	ug/L	50	48.8	98	75-125	
Bromochloromethane	ug/L	50	49.8	100	75-125	
Bromodichloromethane	ug/L	50	50.7	101	75-125	
Bromoform	ug/L	100	106	106	68-125	
Bromomethane	ug/L	50	50.2	100	47-129	
Carbon disulfide	ug/L	50	34.3	69	64-125	
Carbon tetrachloride	ug/L	50	49.7	99	59-133	
Chlorobenzene	ug/L	50	50.9	102	75-125	
Chloroethane	ug/L	50	49.9	100	73-132	
Chloroform	ug/L	50	49.8	100	75-125	

QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

LABORATORY CONTROL SAMPLE: 702423

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloromethane	ug/L	50	45.6	91	72-125	
cis-1,2-Dichloroethene	ug/L	50	50.0	100	75-125	
cis-1,3-Dichloropropene	ug/L	50	55.2	110	75-125	
Dibromochloromethane	ug/L	50	51.5	103	75-125	
Dibromomethane	ug/L	50	48.5	97	75-125	
Dichlorodifluoromethane	ug/L	50	42.3	85	69-134	
Ethylbenzene	ug/L	50	53.6	107	75-125	
Iodomethane	ug/L	50	53.9	108	70-130	
m&p-Xylene	ug/L	100	108	108	75-125	
Methylene Chloride	ug/L	50	45.2	90	75-125	
o-Xylene	ug/L	50	53.9	108	75-125	
Styrene	ug/L	50	53.8	108	75-125	
Tetrachloroethene	ug/L	50	50.9	102	74-125	
Toluene	ug/L	50	50.4	101	75-125	
trans-1,2-Dichloroethene	ug/L	50	46.8	94	74-125	
trans-1,3-Dichloropropene	ug/L	50	56.5	113	75-125	
trans-1,4-Dichloro-2-butene	ug/L	125	145	116	65-125	
Trichloroethene	ug/L	50	48.0	96	75-125	
Trichlorofluoromethane	ug/L	50	49.8	100	73-134	
Vinyl acetate	ug/L	50	68.5	137	40-150	
Vinyl chloride	ug/L	50	54.8	110	75-126	
Xylene (Total)	ug/L	150	162	108	75-125	
1,2-Dichloroethane-d4 (S)	%			92	75-125	
4-Bromofluorobenzene (S)	%			101	75-125	
Dibromofluoromethane (S)	%			99	75-125	
Toluene-d8 (S)	%			99	75-125	

MATRIX SPIKE SAMPLE: 703198

Parameter	Units	10115255001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	20	22.6	113	71-125	
1,1,1-Trichloroethane	ug/L	<0.50	20	23.8	119	75-125	
1,1,2,2-Tetrachloroethane	ug/L	<0.50	20	26.4	132	75-126	M0
1,1,2-Trichloroethane	ug/L	<0.50	20	22.7	114	75-125	
1,1-Dichloroethane	ug/L	<0.50	20	22.5	113	75-125	
1,1-Dichloroethene	ug/L	<0.50	20	22.2	111	64-142	
1,2,3-Trichloropropane	ug/L	<0.50	20	25.2	126	72-127	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	20	26.1	131	65-125	M0
1,2-Dibromoethane (EDB)	ug/L	<0.50	20	22.4	112	75-125	
1,2-Dichlorobenzene	ug/L	<0.50	20	24.1	120	75-125	
1,2-Dichloroethane	ug/L	<0.50	20	21.0	105	75-125	
1,2-Dichloropropane	ug/L	<0.50	20	22.8	114	75-125	
1,3-Dichlorobenzene	ug/L	<0.50	20	24.9	124	75-125	
1,4-Dichlorobenzene	ug/L	<0.50	20	24.0	120	75-125	
2-Butanone (MEK)	ug/L	<2.0	20	18.4	92	51-134	
2-Hexanone	ug/L	<2.0	20	23.5	117	47-125	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.0	20	24.7	124	60-135	

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QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

MATRIX SPIKE SAMPLE: 703198

Parameter	Units	10115255001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	<5.0	50	34.7	69	30-125	
Acetonitrile	ug/L	<20.0	200	216	108	59-125	
Benzene	ug/L	<0.50	20	21.9	110	75-125	
Bromochloromethane	ug/L	<0.50	20	21.7	108	75-125	
Bromodichloromethane	ug/L	<0.50	20	22.3	111	72-125	
Bromoform	ug/L	<4.0	40	45.8	114	51-125	
Bromomethane	ug/L	<2.0	20	21.6	108	47-130	
Carbon disulfide	ug/L	<0.50	20	16.0	80	37-141	
Carbon tetrachloride	ug/L	<2.0	20	23.5	117	61-133	
Chlorobenzene	ug/L	<0.50	20	22.6	113	75-125	
Chloroethane	ug/L	<0.50	20	19.9	99	75-132	
Chloroform	ug/L	<0.50	20	22.4	112	75-125	
Chloromethane	ug/L	<2.0	20	20.1	100	68-132	
cis-1,2-Dichloroethene	ug/L	<0.50	20	22.6	113	75-125	
cis-1,3-Dichloropropene	ug/L	<2.0	20	24.5	123	63-125	
Dibromochloromethane	ug/L	<0.50	20	22.7	114	62-125	
Dibromomethane	ug/L	<0.50	20	22.0	110	75-125	
Dichlorodifluoromethane	ug/L	<0.50	20	20.3	102	65-150	
Ethylbenzene	ug/L	<0.50	20	23.2	116	75-125	
Iodomethane	ug/L	<2.0	20	22.2	111	70-130	
m&p-Xylene	ug/L	<1.0	40	47.1	118	67-125	
Methylene Chloride	ug/L	<2.0	20	20.6	103	75-125	
o-Xylene	ug/L	<0.50	20	23.2	116	72-125	
Styrene	ug/L	<0.50	20	19.1	96	30-134	
Tetrachloroethene	ug/L	<0.50	20	23.7	119	74-125	
Toluene	ug/L	<0.50	20	22.7	114	75-125	
trans-1,2-Dichloroethene	ug/L	<0.50	20	21.2	106	72-125	
trans-1,3-Dichloropropene	ug/L	<2.0	20	24.9	125	63-125	
trans-1,4-Dichloro-2-butene	ug/L	<5.0	50	70.8	142	41-127	M0
Trichloroethene	ug/L	<0.50	20	21.8	109	58-127	
Trichlorofluoromethane	ug/L	<0.50	20	22.1	110	73-150	
Vinyl acetate	ug/L	<10.0	20	30.0	150	50-150	
Vinyl chloride	ug/L	<0.20	20	23.4	117	75-134	
Xylene (Total)	ug/L	<1.5	60	70.4	117	75-125	
1,2-Dichloroethane-d4 (S)	%				96	75-125	
4-Bromofluorobenzene (S)	%				107	75-125	
Dibromofluoromethane (S)	%				96	75-125	
Toluene-d8 (S)	%				100	75-125	

SAMPLE DUPLICATE: 703199

Parameter	Units	10115255002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	ND		30	
1,1,1-Trichloroethane	ug/L	<0.50	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	<0.50	ND		30	
1,1,2-Trichloroethane	ug/L	<0.50	ND		30	
1,1-Dichloroethane	ug/L	<0.50	ND		30	

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QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

SAMPLE DUPLICATE: 703199

Parameter	Units	10115255002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1-Dichloroethene	ug/L	<0.50	ND		30	
1,2,3-Trichloropropane	ug/L	<0.50	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	ND		30	
1,2-Dibromoethane (EDB)	ug/L	<0.50	ND		30	
1,2-Dichlorobenzene	ug/L	<0.50	ND		30	
1,2-Dichloroethane	ug/L	<0.50	ND		30	
1,2-Dichloropropane	ug/L	<0.50	ND		30	
1,3-Dichlorobenzene	ug/L	<0.50	ND		30	
1,4-Dichlorobenzene	ug/L	<0.50	ND		30	
2-Butanone (MEK)	ug/L	<2.0	ND		30	
2-Hexanone	ug/L	<2.0	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	<2.0	ND		30	
Acetone	ug/L	<5.0	ND		30	
Acetonitrile	ug/L	<20.0	ND		30	
Benzene	ug/L	<0.50	ND		30	
Bromochloromethane	ug/L	<0.50	ND		30	
Bromodichloromethane	ug/L	<0.50	ND		30	
Bromoform	ug/L	<4.0	ND		30	
Bromomethane	ug/L	<2.0	ND		30	
Carbon disulfide	ug/L	<0.50	ND		30	
Carbon tetrachloride	ug/L	<2.0	ND		30	
Chlorobenzene	ug/L	<0.50	ND		30	
Chloroethane	ug/L	<0.50	ND		30	
Chloroform	ug/L	<0.50	ND		30	
Chloromethane	ug/L	<2.0	ND		30	
cis-1,2-Dichloroethene	ug/L	<0.50	ND		30	
cis-1,3-Dichloropropene	ug/L	<2.0	ND		30	
Dibromochloromethane	ug/L	<0.50	ND		30	
Dibromomethane	ug/L	<0.50	ND		30	
Dichlorodifluoromethane	ug/L	<0.50	ND		30	
Ethylbenzene	ug/L	<0.50	ND		30	
Iodomethane	ug/L	<2.0	ND		30	
m&p-Xylene	ug/L	<1.0	ND		30	
Methylene Chloride	ug/L	<2.0	ND		30	
o-Xylene	ug/L	<0.50	ND		30	
Styrene	ug/L	<0.50	ND		30	
Tetrachloroethene	ug/L	<0.50	ND		30	
Toluene	ug/L	<0.50	ND		30	
trans-1,2-Dichloroethene	ug/L	<0.50	ND		30	
trans-1,3-Dichloropropene	ug/L	<2.0	ND		30	
trans-1,4-Dichloro-2-butene	ug/L	<5.0	ND		30	
Trichloroethene	ug/L	<0.50	ND		30	
Trichlorofluoromethane	ug/L	<0.50	ND		30	
Vinyl acetate	ug/L	<10.0	ND		30	
Vinyl chloride	ug/L	<0.20	ND		30	
Xylene (Total)	ug/L	<1.5	ND		30	
1,2-Dichloroethane-d4 (S)	%	105	106	0		
4-Bromofluorobenzene (S)	%	103	103	0		

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QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

SAMPLE DUPLICATE: 703199

Parameter	Units	10115255002 Result	Dup Result	RPD	Max RPD	Qualifiers
Dibromofluoromethane (S)	%	104	106	2		
Toluene-d8 (S)	%	96	95	1		

QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

QC Batch: WETA/8561
QC Batch Method: SM 4500-Cl E
Analysis Method: SM 4500-Cl E
Analysis Description: SM4500Cl-E Chloride
Associated Lab Samples: 10115393001

METHOD BLANK: 704336
Matrix: Water
Associated Lab Samples: 10115393001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	2.0	10/29/09 16:41	

LABORATORY CONTROL SAMPLE: 704337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	30	31.4	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 704338 704339

Parameter	Units	10114979005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	22.1	30	30	51.3	51.5	97	98	80-120	0	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 704340 704341

Parameter	Units	10115300009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	17.5	30	30	48.0	48.3	102	103	80-120	1	30	

QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

QC Batch: WETA/8564
Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004

METHOD BLANK: 704547
Matrix: Water
Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.10	10/30/09 09:34	

LABORATORY CONTROL SAMPLE: 704548

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	5	5.1	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 704549 704550

Parameter	Units	10115393001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	6.7	5	5	12.5	12.1	116	109	80-120	3	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 704551 704552

Parameter	Units	10115469007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	0.61	5	5	5.8	5.9	104	106	80-120	2	30	

QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

QC Batch: WETA/8585
QC Batch Method: SM 4500-Cl E
Analysis Method: SM 4500-Cl E
Analysis Description: SM4500Cl-E Chloride
Associated Lab Samples: 10115393002, 10115393003, 10115393004

METHOD BLANK: 707087
Matrix: Water
Associated Lab Samples: 10115393002, 10115393003, 10115393004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	2.0	11/04/09 10:45	

LABORATORY CONTROL SAMPLE: 707088

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	30	31.6	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 707089 707090

Parameter	Units	10115393002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	17.6	30	30	46.8	46.9	97	98	80-120	0	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 707091 707092

Parameter	Units	10115527001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	31.9	30	30	58.3	58.5	88	89	80-120	0	30	

QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

QC Batch: WETA/8568
Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4
Analysis Description: 410.4 COD
Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004

METHOD BLANK: 705025
Matrix: Water
Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	50.0	10/30/09 16:30	

LABORATORY CONTROL SAMPLE: 705026

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	300	329	110	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 705027 705028

Parameter	Units	10115360001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	ND	250	250	310	311	108	108	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 705029 705030

Parameter	Units	10115421001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	ND	250	250	284	279	107	105	90-110	2	20	

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QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

QC Batch: WETA/8573
QC Batch Method: ASTM D516-02
Analysis Method: ASTM D516-02
Analysis Description: ASTM D516-9002 Sulfate Water
Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004

METHOD BLANK: 706069 Matrix: Water
Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.5	11/02/09 13:04	

LABORATORY CONTROL SAMPLE: 706070

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7.5	7.5	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 706071 706072

Parameter	Units	10115322002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	55.5	20	20	81.8	82.4	132	135	80-120	1	30	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 706073 706074

Parameter	Units	10115393001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	175	20	20	200	198	122	112	80-120	1	30	M0

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QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

QC Batch: WET/17530
Analysis Method: EPA 120.1
QC Batch Method: EPA 120.1
Analysis Description: 120.1 Specific Conductance
Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004

METHOD BLANK: 702811
Matrix: Water
Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	0.74J	1.0	10/28/09 16:50	

LABORATORY CONTROL SAMPLE: 702812

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	1030	103	90-110	

SAMPLE DUPLICATE: 702813

Parameter	Units	10115391002 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	1790	1790	0	20	

QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

QC Batch: WETA/5086
Analysis Method: EPA 335.4
QC Batch Method: EPA 335.4
Analysis Description: 335.4 Cyanide, Total
Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004

METHOD BLANK: 226240
Matrix: Water
Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.020	10/27/09 14:15	

LABORATORY CONTROL SAMPLE: 226241

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.097	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 226242 226243

Parameter	Units	10115078001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	ND	.6	.6	0.40	0.40	62	63	90-110	.6	20	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 226244 226245

Parameter	Units	4024427002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	0.16	.6	.6	0.71	0.73	93	94	90-110	2	20	

QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

QC Batch: MERP/3943
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury - Dissolved
Associated Lab Samples: 10115393001

METHOD BLANK: 702498
Matrix: Water
Associated Lab Samples: 10115393001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	ND	0.00020	11/03/09 10:47	

LABORATORY CONTROL SAMPLE: 702499

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	.005	0.0053	106	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 702500 702501

Parameter	Units	10115391001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	mg/L	ND	.005	.005	0.0062	0.0064	123	128	85-115	3	20	M0

MATRIX SPIKE SAMPLE: 702502

Parameter	Units	10115469016 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	ND	.005	0.0061	123	85-115	M0

QUALITY CONTROL DATA

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

QC Batch: WET/17522
Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Associated Lab Samples: 10115393001, 10115393002, 10115393003, 10115393004

LABORATORY CONTROL SAMPLE: 702409

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	5	5.0	100	98-102	H6

SAMPLE DUPLICATE: 702407

Parameter	Units	10115293001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.6	1	3	H6

SAMPLE DUPLICATE: 702408

Parameter	Units	10115300001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.6	6.6	0	3	H6

QUALIFIERS

Project:	7002 000 OLD LF/CLARK TAILINGS
Pace Project No.:	10115393

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay
PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

H6	Analysis initiated more than 15 minutes after sample collection.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
Z3	Methylene chloride is a common laboratory contaminant. Results for this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 7002 000 OLD LF/CLARK TAILINGS
Pace Project No.: 10115393

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10115393001	BSB-GW-01	EPA 335.4	WETA/5086		
10115393002	BSB-GW-02	EPA 335.4	WETA/5086		
10115393003	BSB-GW-03	EPA 335.4	WETA/5086		
10115393004	BSB-GW-04	EPA 335.4	WETA/5086		
10115393001	BSB-GW-01	SM 4500-H+B	WET/17522		
10115393002	BSB-GW-02	SM 4500-H+B	WET/17522		
10115393003	BSB-GW-03	SM 4500-H+B	WET/17522		
10115393004	BSB-GW-04	SM 4500-H+B	WET/17522		
10115393001	BSB-GW-01	EPA 8260	MSV/13299		
10115393002	BSB-GW-02	EPA 8260	MSV/13299		
10115393003	BSB-GW-03	EPA 8260	MSV/13299		
10115393004	BSB-GW-04	EPA 8260	MSV/13299		
10115393005	TRIP BLANK	EPA 8260	MSV/13299		
10115393001	BSB-GW-01	EPA 245.1	MERP/3943	EPA 245.1	MERC/4800
10115393001	BSB-GW-01	EPA 200.8	MPRP/17960	EPA 200.8	ICPM/7398
10115393001	BSB-GW-01	EPA 120.1	WET/17530		
10115393002	BSB-GW-02	EPA 120.1	WET/17530		
10115393003	BSB-GW-03	EPA 120.1	WET/17530		
10115393004	BSB-GW-04	EPA 120.1	WET/17530		
10115393001	BSB-GW-01	SM 4500-Cl E	WETA/8561		
10115393001	BSB-GW-01	EPA 353.2	WETA/8564		
10115393002	BSB-GW-02	EPA 353.2	WETA/8564		
10115393003	BSB-GW-03	EPA 353.2	WETA/8564		
10115393004	BSB-GW-04	EPA 353.2	WETA/8564		
10115393001	BSB-GW-01	EPA 410.4	WETA/8568		
10115393002	BSB-GW-02	EPA 410.4	WETA/8568		
10115393003	BSB-GW-03	EPA 410.4	WETA/8568		
10115393004	BSB-GW-04	EPA 410.4	WETA/8568		
10115393001	BSB-GW-01	ASTM D516-02	WETA/8573		
10115393002	BSB-GW-02	ASTM D516-02	WETA/8573		
10115393003	BSB-GW-03	ASTM D516-02	WETA/8573		
10115393004	BSB-GW-04	ASTM D516-02	WETA/8573		
10115393002	BSB-GW-02	SM 4500-Cl E	WETA/8585		
10115393003	BSB-GW-03	SM 4500-Cl E	WETA/8585		
10115393004	BSB-GW-04	SM 4500-Cl E	WETA/8585		

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ACCREDITED IN ACCORDANCE WITH nelac

Pace Analytical™

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

October 29, 2009

Client Services
Pace Analytical Services, Inc.
1700 Elm Street
Suite 200
Minneapolis, MN 55414

RE: Project 20101115
Project ID: 10115393

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on October 24, 2009. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerly,

Karen H Brown

Karen Brown
karen.brown@pacelabs.com

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the written consent of Pace Analytical Services, Inc.

Laboratory Certifications

Project: 20101115

Client: PASI Minnesota

Project ID: 10115393

U.S. Dept. of Agriculture Foreign Soil Import S-47270
Pennsylviania Dept. of Env Protection (NELAC) 68-04202
Texas Commission on Env. Quality (NELAC) T104704405-08-TX
Kansas Department of Health and Environment (NELAC) E-10266
Florida Department of Health (NELAC) E87595
Louisiana Dept. of Health and Hospitals (NELAC) LA080013
Louisiana Dept. of Environmental Quality (NELAC/LELAP) 02006

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the written consent of Pace Analytical Services, Inc.

Sample Cross Reference

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20101115

Client: PASI Minnesota

Project ID: 10115393

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
BSB-GW-01	20735917	Water	21-Oct-09 11:45	24-Oct-09 09:00
BSB-GW-02	20735918	Water	21-Oct-09 14:38	24-Oct-09 09:00
BSB-GW-03	20735919	Water	21-Oct-09 15:53	24-Oct-09 09:00
BSB-GW-04	20735920	Water	22-Oct-09 11:00	24-Oct-09 09:00

Project Narrative

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20101115

Sample Receipt Condition:

All samples were received in accordance with EPA protocol.

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Matrix Spikes and Duplicates:

MS or MSD recoveries outside of QC limits are qualified in the Report of Quality Control section.

Surrogates:

Surrogate recoveries outside of QC limits are qualified in the surrogate results section.

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project Narrative

Project: 20101115

Analytical Method	Batch	Sample used for QC
EPA 8270	128279	Batch sample from another client

10/29/2009 16:57:00

For the sample used as the original for the DUP or MS/MSD for the batch:

Project sample means a sample from this project was used.
Client sample means a sample from the same client but in a different project was used.
Batch sample means a sample from the a different client was used.

Pace Analytical™

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-01 MBM6-2

Project ID: 10115393

Lab ID: 20735917

Description: None

Method: EPA 8270
GCMS SVOAs Dual pH

Project: 20101115

Site: None

Matrix: Water **% Moisture:** n/a

Prep Level: Water **Batch:** 128279

Collected: 21-Oct-09 **Received:** 24-Oct-09

Prepared: 26-Oct-09

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		10.0	2.75		29-Oct-09 12:56 JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99		29-Oct-09 12:56 JAM
120-12-7	Anthracene	1	ND		10.0	2.81		29-Oct-09 12:56 JAM
92-87-5	Benzidine	1	ND		30.0	30.0		29-Oct-09 12:56 JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91		29-Oct-09 12:56 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56		29-Oct-09 12:56 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60		29-Oct-09 12:56 JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60		29-Oct-09 12:56 JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32		29-Oct-09 12:56 JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79		29-Oct-09 12:56 JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40		29-Oct-09 12:56 JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63		29-Oct-09 12:56 JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44		29-Oct-09 12:56 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62		29-Oct-09 12:56 JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63		29-Oct-09 12:56 JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97		29-Oct-09 12:56 JAM
106-48-9	4-Chlorophenol	1	ND		10.0	10.0		29-Oct-09 12:56 JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93		29-Oct-09 12:56 JAM
218-01-9	Chrysene	1	ND		10.0	2.98		29-Oct-09 12:56 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95		29-Oct-09 12:56 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38		29-Oct-09 12:56 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54		29-Oct-09 12:56 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00		29-Oct-09 12:56 JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68		29-Oct-09 12:56 JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37		29-Oct-09 12:56 JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32		29-Oct-09 12:56 JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45		29-Oct-09 12:56 JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43		29-Oct-09 12:56 JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58		29-Oct-09 12:56 JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41		29-Oct-09 12:56 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52		29-Oct-09 12:56 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10		29-Oct-09 12:56 JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57		29-Oct-09 12:56 JAM
122-66-7	1,2-Diphenylhydrazine	1	ND		10.0	3.50		29-Oct-09 12:56 JAM

Protocol 10/29/2009 16:57:01

ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-01 MBMG-2
Project ID: 10115393
Lab ID: 20735917
Description: None
Method: EPA 8270
GCMS SVOAs Dual pH

Project: 20101115
Site: None
Matrix: Water **% Moisture:** n/a
Prep Level: Water **Batch:** 128279
Collected: 21-Oct-09 **Received:** 24-Oct-09
Prepared: 26-Oct-09

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0	4.50		29-Oct-09 12:56 JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75		29-Oct-09 12:56 JAM
86-73-7	Fluorene	1	ND		10.0	3.15		29-Oct-09 12:56 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84		29-Oct-09 12:56 JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26		29-Oct-09 12:56 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750		29-Oct-09 12:56 JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878		29-Oct-09 12:56 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24		29-Oct-09 12:56 JAM
78-59-1	Isophorone	1	ND		10.0	2.79		29-Oct-09 12:56 JAM
90-12-0	1-Methylnaphthalene	1	ND		10.0	2.49		29-Oct-09 12:56 JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74		29-Oct-09 12:56 JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97		29-Oct-09 12:56 JAM
TMBT	3&4-Methylphenol	1	ND		10.0	1.51		29-Oct-09 12:56 JAM
91-20-3	Naphthalene	1	ND		10.0	2.59		29-Oct-09 12:56 JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23		29-Oct-09 12:56 JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23		29-Oct-09 12:56 JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95		29-Oct-09 12:56 JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27		29-Oct-09 12:56 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05		29-Oct-09 12:56 JAM
930-55-2	N-Nitrosopyrrolidine	1	ND		10.0	2.40		29-Oct-09 12:56 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40		29-Oct-09 12:56 JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99		29-Oct-09 12:56 JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11		29-Oct-09 12:56 JAM
108-95-2	Phenol	1	ND		10.0	2.88		29-Oct-09 12:56 JAM
129-00-0	Pyrene	1	ND		10.0	3.11		29-Oct-09 12:56 JAM
110-86-1	Pyridine	1	ND		10.0	2.19		29-Oct-09 12:56 JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60		29-Oct-09 12:56 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48		29-Oct-09 12:56 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86		29-Oct-09 12:56 JAM

63 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

Protocol 10/29/2009 16:57:02

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Pace Analytical™

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-02 BSB-A1

Project ID: 10115393

Lab ID: 20735918

Description: None

Method: EPA 8270
GCMS SVOAs Dual pH

Project: 20101115

Site: None

Matrix: Water **% Moisture:** n/a

Prep Level: Water **Batch:** 128279

Collected: 21-Oct-09 **Received:** 24-Oct-09

Prepared: 26-Oct-09

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		10.0	2.75		29-Oct-09 13:24 JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99		29-Oct-09 13:24 JAM
120-12-7	Anthracene	1	ND		10.0	2.81		29-Oct-09 13:24 JAM
92-87-5	Benzidine	1	ND		30.0	30.0		29-Oct-09 13:24 JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91		29-Oct-09 13:24 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56		29-Oct-09 13:24 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60		29-Oct-09 13:24 JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60		29-Oct-09 13:24 JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32		29-Oct-09 13:24 JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79		29-Oct-09 13:24 JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40		29-Oct-09 13:24 JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63		29-Oct-09 13:24 JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44		29-Oct-09 13:24 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62		29-Oct-09 13:24 JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63		29-Oct-09 13:24 JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97		29-Oct-09 13:24 JAM
106-48-9	4-Chlorophenol	1	ND		10.0	10.0		29-Oct-09 13:24 JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93		29-Oct-09 13:24 JAM
218-01-9	Chrysene	1	ND		10.0	2.98		29-Oct-09 13:24 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95		29-Oct-09 13:24 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38		29-Oct-09 13:24 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54		29-Oct-09 13:24 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00		29-Oct-09 13:24 JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68		29-Oct-09 13:24 JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37		29-Oct-09 13:24 JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32		29-Oct-09 13:24 JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45		29-Oct-09 13:24 JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43		29-Oct-09 13:24 JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58		29-Oct-09 13:24 JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41		29-Oct-09 13:24 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52		29-Oct-09 13:24 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10		29-Oct-09 13:24 JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57		29-Oct-09 13:24 JAM
122-66-7	1,2-Diphenylhydrazine	1	ND		10.0	3.50		29-Oct-09 13:24 JAM

Protocol 10/29/2009 16:57:02

ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

PaceAnalytical™

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-02 BSB-A1
Project ID: 10115393
Lab ID: 20735918
Description: None
Method: EPA 8270
GCMS SVOAs Dual pH

Project: 20101115
Site: None
Matrix: Water **% Moisture:** n/a
Prep Level: Water **Batch:** 128279
Collected: 21-Oct-09 **Received:** 24-Oct-09
Prepared: 26-Oct-09

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0	4.50		29-Oct-09 13:24 JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75		29-Oct-09 13:24 JAM
86-73-7	Fluorene	1	ND		10.0	3.15		29-Oct-09 13:24 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84		29-Oct-09 13:24 JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26		29-Oct-09 13:24 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750		29-Oct-09 13:24 JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878		29-Oct-09 13:24 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24		29-Oct-09 13:24 JAM
78-59-1	Isophorone	1	ND		10.0	2.79		29-Oct-09 13:24 JAM
90-12-0	1-Methylnaphthalene	1	ND		10.0	2.49		29-Oct-09 13:24 JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74		29-Oct-09 13:24 JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97		29-Oct-09 13:24 JAM
TMBT	3&4-Methylphenol	1	ND		10.0	1.51		29-Oct-09 13:24 JAM
91-20-3	Naphthalene	1	ND		10.0	2.59		29-Oct-09 13:24 JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23		29-Oct-09 13:24 JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23		29-Oct-09 13:24 JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95		29-Oct-09 13:24 JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27		29-Oct-09 13:24 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05		29-Oct-09 13:24 JAM
930-55-2	N-Nitrosopyrrolidine	1	ND		10.0	2.40		29-Oct-09 13:24 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40		29-Oct-09 13:24 JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99		29-Oct-09 13:24 JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11		29-Oct-09 13:24 JAM
108-95-2	Phenol	1	ND		10.0	2.88		29-Oct-09 13:24 JAM
129-00-0	Pyrene	1	ND		10.0	3.11		29-Oct-09 13:24 JAM
110-86-1	Pyridine	1	ND		10.0	2.19		29-Oct-09 13:24 JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60		29-Oct-09 13:24 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48		29-Oct-09 13:24 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86		29-Oct-09 13:24 JAM

63 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

Protocol 10/29/2009 16:57:02
Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Pace Analytical™

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-03 BSB-AS
Project ID: 10115393
Lab ID: 20735919
Description: None
Method: EPA 8270
GCMS SVOAs Dual pH

Project: 20101115
Site: None
Matrix: Water **% Moisture:** n/a
Prep Level: Water **Batch:** 128279
Collected: 21-Oct-09 **Received:** 24-Oct-09
Prepared: 26-Oct-09

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		10.0	2.75		29-Oct-09 13:53 JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99		29-Oct-09 13:53 JAM
120-12-7	Anthracene	1	ND		10.0	2.81		29-Oct-09 13:53 JAM
92-87-5	Benzidine	1	ND		30.0	30.0		29-Oct-09 13:53 JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91		29-Oct-09 13:53 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56		29-Oct-09 13:53 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60		29-Oct-09 13:53 JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60		29-Oct-09 13:53 JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32		29-Oct-09 13:53 JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79		29-Oct-09 13:53 JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40		29-Oct-09 13:53 JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63		29-Oct-09 13:53 JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44		29-Oct-09 13:53 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62		29-Oct-09 13:53 JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63		29-Oct-09 13:53 JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97		29-Oct-09 13:53 JAM
106-48-9	4-Chlorophenol	1	ND		10.0	10.0		29-Oct-09 13:53 JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93		29-Oct-09 13:53 JAM
218-01-9	Chrysene	1	ND		10.0	2.98		29-Oct-09 13:53 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95		29-Oct-09 13:53 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38		29-Oct-09 13:53 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54		29-Oct-09 13:53 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00		29-Oct-09 13:53 JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68		29-Oct-09 13:53 JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37		29-Oct-09 13:53 JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32		29-Oct-09 13:53 JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45		29-Oct-09 13:53 JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43		29-Oct-09 13:53 JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58		29-Oct-09 13:53 JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41		29-Oct-09 13:53 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52		29-Oct-09 13:53 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10		29-Oct-09 13:53 JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57		29-Oct-09 13:53 JAM
122-66-7	1,2-Diphenylhydrazine	1	ND		10.0	3.50		29-Oct-09 13:53 JAM

Protocol 10/29/2009 16:57:02

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Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Pace Analytical™

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Minnesota

Client ID: BSB-GW-03 BSB-A5

Project ID: 10115393

Lab ID: 20735919

Description: None

Method: EPA 8270
GCMS SVOAs Dual pH

Project: 20101115

Site: None

Matrix: Water

% Moisture: n/a

Prep Level: Water

Batch: 128279

Collected: 21-Oct-09

Received: 24-Oct-09

Prepared: 26-Oct-09

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0	4.50		29-Oct-09 13:53 JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75		29-Oct-09 13:53 JAM
86-73-7	Fluorene	1	ND		10.0	3.15		29-Oct-09 13:53 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84		29-Oct-09 13:53 JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26		29-Oct-09 13:53 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750		29-Oct-09 13:53 JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878		29-Oct-09 13:53 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24		29-Oct-09 13:53 JAM
78-59-1	Isophorone	1	ND		10.0	2.79		29-Oct-09 13:53 JAM
90-12-0	1-Methylnaphthalene	1	ND		10.0	2.49		29-Oct-09 13:53 JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74		29-Oct-09 13:53 JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97		29-Oct-09 13:53 JAM
TMBT	3&4-Methylphenol	1	ND		10.0	1.51		29-Oct-09 13:53 JAM
91-20-3	Naphthalene	1	ND		10.0	2.59		29-Oct-09 13:53 JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23		29-Oct-09 13:53 JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23		29-Oct-09 13:53 JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95		29-Oct-09 13:53 JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27		29-Oct-09 13:53 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05		29-Oct-09 13:53 JAM
930-55-2	N-Nitrosopyrrolidine	1	ND		10.0	2.40		29-Oct-09 13:53 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40		29-Oct-09 13:53 JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99		29-Oct-09 13:53 JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11		29-Oct-09 13:53 JAM
108-95-2	Phenol	1	ND		10.0	2.88		29-Oct-09 13:53 JAM
129-00-0	Pyrene	1	ND		10.0	3.11		29-Oct-09 13:53 JAM
110-86-1	Pyridine	1	ND		10.0	2.19		29-Oct-09 13:53 JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60		29-Oct-09 13:53 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48		29-Oct-09 13:53 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86		29-Oct-09 13:53 JAM

63 compound(s) reported

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Sample Results

Client: PASI Minnesota

Client ID: BSB-GW-04 BSB-A6R

Project ID: 10115393

Lab ID: 20735920

Description: None

Method: EPA 8270
GCMS SVOAs Dual pH

Project: 20101115

Site: None

Matrix: Water **% Moisture:** n/a

Prep Level: Water **Batch:** 128279

Collected: 22-Oct-09 **Received:** 24-Oct-09

Prepared: 26-Oct-09

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		10.0	2.75		29-Oct-09 14:21 JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99		29-Oct-09 14:21 JAM
120-12-7	Anthracene	1	ND		10.0	2.81		29-Oct-09 14:21 JAM
92-87-5	Benzidine	1	ND		30.0	30.0		29-Oct-09 14:21 JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91		29-Oct-09 14:21 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56		29-Oct-09 14:21 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60		29-Oct-09 14:21 JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60		29-Oct-09 14:21 JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32		29-Oct-09 14:21 JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79		29-Oct-09 14:21 JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40		29-Oct-09 14:21 JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63		29-Oct-09 14:21 JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44		29-Oct-09 14:21 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62		29-Oct-09 14:21 JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63		29-Oct-09 14:21 JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97		29-Oct-09 14:21 JAM
106-48-9	4-Chlorophenol	1	ND		10.0	10.0		29-Oct-09 14:21 JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93		29-Oct-09 14:21 JAM
218-01-9	Chrysene	1	ND		10.0	2.98		29-Oct-09 14:21 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95		29-Oct-09 14:21 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38		29-Oct-09 14:21 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54		29-Oct-09 14:21 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00		29-Oct-09 14:21 JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68		29-Oct-09 14:21 JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37		29-Oct-09 14:21 JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32		29-Oct-09 14:21 JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45		29-Oct-09 14:21 JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43		29-Oct-09 14:21 JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58		29-Oct-09 14:21 JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41		29-Oct-09 14:21 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52		29-Oct-09 14:21 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10		29-Oct-09 14:21 JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57		29-Oct-09 14:21 JAM
122-66-7	1,2-Diphenylhydrazine	1	ND		10.0	3.50		29-Oct-09 14:21 JAM

Protocol 10/29/2009 16:57:02

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Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Sample Results

Client: PASI Minnesota

Client ID: BSB-GW-04 BSB-A6R
Project ID: 10115393
Lab ID: 20735920
Description: None
Method: EPA 8270
GCMS SVOAs Dual pH

Project: 20101115
Site: None
Matrix: Water **% Moisture:** n/a
Prep Level: Water **Batch:** 128279
Collected: 22-Oct-09 **Received:** 24-Oct-09
Prepared: 26-Oct-09

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Reg Limit	Analysis
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0	4.50		29-Oct-09 14:21 JAM
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86-73-7	Fluorene	1	ND		10.0	3.15		29-Oct-09 14:21 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84		29-Oct-09 14:21 JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26		29-Oct-09 14:21 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750		29-Oct-09 14:21 JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878		29-Oct-09 14:21 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24		29-Oct-09 14:21 JAM
78-59-1	Isophorone	1	ND		10.0	2.79		29-Oct-09 14:21 JAM
90-12-0	1-Methylnaphthalene	1	ND		10.0	2.49		29-Oct-09 14:21 JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74		29-Oct-09 14:21 JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97		29-Oct-09 14:21 JAM
TMBT	3&4-Methylphenol	1	ND		10.0	1.51		29-Oct-09 14:21 JAM
91-20-3	Naphthalene	1	ND		10.0	2.59		29-Oct-09 14:21 JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23		29-Oct-09 14:21 JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23		29-Oct-09 14:21 JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95		29-Oct-09 14:21 JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27		29-Oct-09 14:21 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05		29-Oct-09 14:21 JAM
930-55-2	N-Nitrosopyrrolidine	1	ND		10.0	2.40		29-Oct-09 14:21 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40		29-Oct-09 14:21 JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99		29-Oct-09 14:21 JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11		29-Oct-09 14:21 JAM
108-95-2	Phenol	1	ND		10.0	2.88		29-Oct-09 14:21 JAM
129-00-0	Pyrene	1	ND		10.0	3.11		29-Oct-09 14:21 JAM
110-86-1	Pyridine	1	ND		10.0	2.19		29-Oct-09 14:21 JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60		29-Oct-09 14:21 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48		29-Oct-09 14:21 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86		29-Oct-09 14:21 JAM

63 compound(s) reported

Protocol 10/29/2009 16:57:02

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Organics Quality Control

Batch: 128279
Method: GC/MS Semivolatile Organics

Project: 20101115
Units: ug/L

LCS: 20736069 28-Oct-09 13:47
MS: 20736070 28-Oct-09 20:31
MSD: 20736071 28-Oct-09 20:58
Original for MS: Batch Sample 20735766

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits		Max	Qu
											LCS	MS/MSD	RPD	
Acenaphthene	50.0	37.8	76	50.0		24.1	31.8	48	64	28 *	52-110	33-121	20	
Acenaphthylene	50.0	37.4	75	50.0		22.2	29.5	44	59	28 *	49-110	23-121	20	
Anthracene	50.0	39.1	78	50.0		21.4	26.9	43	54	23 *	54-110	26-121	20	
Benzo(a)anthracene	50.0	38.0	76	50.0		17.9	22.2	36	45	22 *	54-110	27-120	20	
Benzo(b)fluoranthene	50.0	39.8	80	50.0		17.5	22.6	35	45	25 *	47-113	16-135	20	
Benzo(k)fluoranthene	50.0	40.3	81	50.0		17.1	21.9	34	44	25 *	51-112	18-135	20	
Benzo(g,h,i)perylene	50.0	40.9	82	50.0		18.9	23.0	38	46	19	39-118	10-129	20	
Benzo(a)pyrene	50.0	39.5	79	50.0		15.1	16.2	30	32	7	49-110	17-121	20	
4-Bromophenylphenyl ether	50.0	42.7	85	50.0		26.1	33.9	52	68	26 *	50-116	27-129	20	
Butylbenzylphthalate	50.0	41.5	83	50.0		22.8	29.8	46	60	26 *	48-118	23-128	20	
4-Chloro-3-methylphenol	50.0	32.9	66	50.0		22.3	28.8	45	58	26 *	34-112	10-147	20	
bis(2-Chloroethoxy)methane	50.0	36.9	74	50.0		26.2	33.7	52	67	25 *	38-110	28-117	20	
bis(2-Chloroethyl) ether	50.0	38.6	77	50.0		26.6	33.6	53	67	23 *	48-111	28-126	20	
2-Chloronaphthalene	50.0	36.6	73	50.0		23.2	30.7	46	61	28 *	52-110	35-114	20	
2-Chlorophenol	50.0	33.6	67	50.0		22.5	25.1	45	50	11	42-110	10-130	20	
4-Chlorophenylphenyl ether	50.0	38.8	78	50.0		24.1	31.9	48	64	28 *	51-112	31-124	20	
Chrysene	50.0	37.3	75	50.0		17.3	21.3	35	43	21 *	53-110	25-122	20	
Dibenz(a,h)anthracene	50.0	44.7	90	50.0		19.7	23.5	39	47	17	43-119	12-130	20	
1,2-Dichlorobenzene	50.0	36.4	73	50.0		21.4	28.8	43	58	29 *	45-110	29-110	20	
1,3-Dichlorobenzene	50.0	35.8	72	50.0		19.5	25.9	39	52	28 *	42-110	29-110	20	
3,3'-Dichlorobenzidine	50.0	40.6	81	50.0		2.38		5 *	0 *	200 *	20-123	10-114	20	QI
2,4-Dichlorophenol	50.0	30.7	62	50.0		29.2	25.6	58	51	13	36-110	10-134	20	
Diethylphthalate	50.0	37.6	75	50.0		24.6	32.8	49	66	29 *	50-117	30-131	20	
2,4-Dimethylphenol	50.0	32.2	64	50.0		23.2	29.1	46	58	22 *	16-110	10-134	20	
Dimethylphthalate	50.0	37.7	76	50.0		24.3	33.1	49	66	31 *	52-113	34-126	20	
Di-n-butylphthalate	50.0	39.5	79	50.0		22.0	28.3	44	57	25 *	52-115	30-126	20	
4,6-Dinitro-2-methylphenol	50.0	37.0	74	50.0		16.9	25.5	34	51	40 *	36-122	10-161	20	
2,4-Dinitrophenol	50.0	45.8	92	50.0		19.9	30.1	40	60	41 *	10-135	10-165	20	
2,4-Dinitrotoluene	50.0	38.1	76	50.0		24.3	33.1	49	66	31 *	47-117	34-124	20	
2,6-Dinitrotoluene	50.0	38.5	77	50.0		24.4	32.6	49	65	29 *	51-115	37-127	20	
Di-n-octylphthalate	50.0	48.3	97	50.0		21.2	26.5	43	53	22 *	42-126	10-157	20	
1,2-Diphenylhydrazine	50.0	38.7	77	50.0		23.4	31.9			31	47-113	40-120	20	
bis(2-Ethylhexyl)phthalate	50.0	43.3	87	50.0		20.7	24.4	41	49	17	45-127	17-133	20	
Fluoranthene	50.0	37.7	75	50.0		19.1	24.4	38	49	24 *	47-116	29-126	20	
Fluorene	50.0	39.3	79	50.0		24.8	32.1	50	64	26 *	52-110	31-127	20	
Hexachloro-1,3-butadiene	50.0	33.3	67	50.0		17.4	22.9	35	46	27 *	31-110	17-110	20	
Hexachlorobenzene	50.0	37.3	75	50.0		18.0	23.9	36	48	29 *	49-112	28-120	20	
Hexachlorocyclopentadiene	50.0	31.2	62	50.0		13.2	17.3	27	35	27 *	10-110	10-110	20	
Hexachloroethane	50.0	35.1	70	50.0		17.4	24.7	35	49	34 *	39-110	21-110	20	
Indeno(1,2,3-cd)pyrene	50.0	41.8	84	50.0		19.2	23.3	39	47	19	43-116	12-126	20	
Isophorone	50.0	36.1	72	50.0		25.0	32.1	50	64	25 *	38-112	28-120	20	

* denotes recovery outside of QC limits.
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

10/29/2009 16:57:03

Batch: 128279
Method: GC/MS Semivolatile Organics

Project: 20101115
Units: ug/L

LCS: 20736069 28-Oct-09 13:47
MS: 20736070 28-Oct-09 20:31
MSD: 20736071 28-Oct-09 20:58
Original for MS: Batch Sample 20735766

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
1-Methylnaphthalene	50.0	35.8	72	50.0		23.7	30.4			25				
2-Methylnaphthalene	50.0	36.3	73	50.0		23.4	30.9	47	62	28 *	40-110	29-110	20	
2-Methylphenol (o-Cresol)	50.0	35.1	70	50.0		23.6	30.0	47	60	24 *	46-110	10-131	20	
3&4-Methylphenol	50.0	33.6	67	50.0		22.6	28.6	45	57	23 *	44-110	10-151	20	
Naphthalene	50.0	35.9	72	50.0		23.6	30.6	47	61	26 *	36-110	15-120	20	
Nitrobenzene	50.0	36.8	74	50.0		26.0	33.5	52	67	25 *	39-110	15-144	20	
2-Nitrophenol	50.0	35.4	71	50.0		27.8	28.5	56	57	3	34-110	10-140	20	
4-Nitrophenol	50.0	28.2	56	50.0		13.8	19.1	28	38	32 *	27-129	10-163	20	
N-Nitrosodimethylamine	50.0	39.0	78	50.0		25.1	30.4	50	61	19	40-115	18-126	20	
N-Nitroso-di-n-propylamine	50.0	38.7	77	50.0		27.3	34.4	55	69	23 *	48-115	29-134	20	
2,2'-Oxybis(1-chloropropane)	50.0	43.3	87	50.0		29.6	37.8	59	76	24 *	39-118	22-132	20	
Pentachlorophenol	50.0	34.6	69	50.0		30.2	23.2	60	46	26 *	33-127	10-159	20	
Phenanthrene	50.0	38.6	77	50.0		22.7	29.9	45	60	27 *	53-110	31-125	20	
Phenol	50.0	33.7	67	50.0		20.9	26.3	42	53	23 *	41-110	10-143	20	
Pyrene	50.0	39.8	80	50.0		21.6	28.1	43	56	26 *	46-116	23-127	20	
Pyridine	50.0	34.8	70	50.0		23.3	27.5			17	22-115	10-120	20	
1,2,4-Trichlorobenzene	50.0	34.4	69	50.0		20.7	27.7	41	55	29 *	37-110	21-110	20	
2,4,5-Trichlorophenol	50.0	31.0	62	50.0		31.5	24.5	63	49	25 *	46-110	10-140	20	
2,4,6-Trichlorophenol	50.0	32.0	64	50.0		31.9	24.1	64	48	28 *	44-110	10-138	20	

60 compound(s) reported

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* denotes recovery outside of QC limits.
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

10/29/2009 16:57:03

Surrogate Recovery

Batch: 128279 **Project:** 20101115

Method: Water GC/MS Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20736068	128279 BLANK 1		79	82	76	87	86	72		
20736069	128279 LCS 1		76	75	67	72	77	70		
20735917	BSB-GW-01		102	84	85	84	106	74		
20735918	BSB-GW-02		98	80	66	83	94	78		
20735919	BSB-GW-03		20 *	90	26	74	44	74		
20735920	BSB-GW-04		111	86	65	86	97	73		
20736070	GDU-MW001-BDGW0001 MS 1		99	46	66	47	73	32		
20736071	GDU-MW001-BDGW0001 MSD		86	64	65	62	86	44		
	QC limits:		25-145	34-117	10-118	33-120	15-134	24-133		

Sur 1: 2,4,6-Tribromophenol (S)
Sur 2: 2-Fluorobiphenyl (S)
Sur 3: 2-Fluorophenol (S)
Sur 4: Nitrobenzene-d5 (S)
Sur 5: Phenol-d5 (S)
Sur 6: Terphenyl-d14 (S)

*** denotes surrogate recovery outside of QC limits.**
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.

Organics Method Blank

Blank ID: 128279 BLANK 1 **Project:** 20101115

Lab ID: 20736068

Prep Level: Water **Batch:** 128279

Method: Water GC/MS Semivolatile Organics

Prepared: 26-Oct-09

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Analysis	
83-32-9	Acenaphthene	1	ND		10.0	2.75	29-Oct-09 12:29	JAM
208-96-8	Acenaphthylene	1	ND		10.0	2.99	29-Oct-09 12:29	JAM
120-12-7	Anthracene	1	ND		10.0	2.81	29-Oct-09 12:29	JAM
92-87-5	Benzidine	1	ND		30.0	30.0	29-Oct-09 12:29	JAM
56-55-3	Benzo(a)anthracene	1	ND		10.0	2.91	29-Oct-09 12:29	JAM
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	3.56	29-Oct-09 12:29	JAM
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	3.60	29-Oct-09 12:29	JAM
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	3.60	29-Oct-09 12:29	JAM
50-32-8	Benzo(a)pyrene	1	ND		10.0	3.32	29-Oct-09 12:29	JAM
101-55-3	4-Bromophenylphenyl ether	1	ND		10.0	3.79	29-Oct-09 12:29	JAM
85-68-7	Butylbenzylphthalate	1	ND		10.0	3.40	29-Oct-09 12:29	JAM
59-50-7	4-Chloro-3-methylphenol	1	ND		10.0	3.63	29-Oct-09 12:29	JAM
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	3.44	29-Oct-09 12:29	JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	3.62	29-Oct-09 12:29	JAM
91-58-7	2-Chloronaphthalene	1	ND		10.0	2.63	29-Oct-09 12:29	JAM
95-57-8	2-Chlorophenol	1	ND		10.0	2.97	29-Oct-09 12:29	JAM
106-48-9	4-Chlorophenol	1	ND		10.0	10.0	29-Oct-09 12:29	JAM
7005-72-3	4-Chlorophenylphenyl ether	1	ND		10.0	2.93	29-Oct-09 12:29	JAM
218-01-9	Chrysene	1	ND		10.0	2.98	29-Oct-09 12:29	JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	2.95	29-Oct-09 12:29	JAM
95-50-1	1,2-Dichlorobenzene	1	ND		10.0	2.38	29-Oct-09 12:29	JAM
541-73-1	1,3-Dichlorobenzene	1	ND		10.0	2.54	29-Oct-09 12:29	JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	2.00	29-Oct-09 12:29	JAM
120-83-2	2,4-Dichlorophenol	1	ND		10.0	2.68	29-Oct-09 12:29	JAM
84-66-2	Diethylphthalate	1	ND		10.0	3.37	29-Oct-09 12:29	JAM
105-67-9	2,4-Dimethylphenol	1	ND		10.0	2.32	29-Oct-09 12:29	JAM
131-11-3	Dimethylphthalate	1	ND		10.0	3.45	29-Oct-09 12:29	JAM
84-74-2	Di-n-butylphthalate	1	ND		10.0	3.43	29-Oct-09 12:29	JAM
534-52-1	4,6-Dinitro-2-methylphenol	1	ND		10.0	2.58	29-Oct-09 12:29	JAM
51-28-5	2,4-Dinitrophenol	1	ND		10.0	1.41	29-Oct-09 12:29	JAM
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	3.52	29-Oct-09 12:29	JAM
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	3.10	29-Oct-09 12:29	JAM
117-84-0	Di-n-octylphthalate	1	ND		10.0	3.57	29-Oct-09 12:29	JAM
122-66-7	1,2-Diphenylhydrazine	1	ND		10.0	3.50	29-Oct-09 12:29	JAM

10/29/2009 16:57:06

ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Pace Analytical™

Organics Method Blank

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 128279 BLANK 1 **Project:** 20101115

Lab ID: 20736068

Prep Level: Water **Batch:** 128279

Method: Water GC/MS Semivolatile Organics

Prepared: 26-Oct-09

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	MDL	Analysis		
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0	4.50	29-Oct-09	12:29	JAM
206-44-0	Fluoranthene	1	ND		10.0	2.75	29-Oct-09	12:29	JAM
86-73-7	Fluorene	1	ND		10.0	3.15	29-Oct-09	12:29	JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		10.0	1.84	29-Oct-09	12:29	JAM
118-74-1	Hexachlorobenzene	1	ND		10.0	3.26	29-Oct-09	12:29	JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	0.750	29-Oct-09	12:29	JAM
67-72-1	Hexachloroethane	1	ND		10.0	0.878	29-Oct-09	12:29	JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	3.24	29-Oct-09	12:29	JAM
78-59-1	Isophorone	1	ND		10.0	2.79	29-Oct-09	12:29	JAM
90-12-0	1-Methylnaphthalene	1	ND		10.0	2.49	29-Oct-09	12:29	JAM
91-57-6	2-Methylnaphthalene	1	ND		10.0	2.74	29-Oct-09	12:29	JAM
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0	2.97	29-Oct-09	12:29	JAM
TMBT	3&4-Methylphenol	1	ND		10.0	1.51	29-Oct-09	12:29	JAM
91-20-3	Naphthalene	1	ND		10.0	2.59	29-Oct-09	12:29	JAM
98-95-3	Nitrobenzene	1	ND		10.0	3.23	29-Oct-09	12:29	JAM
88-75-5	2-Nitrophenol	1	ND		10.0	3.23	29-Oct-09	12:29	JAM
100-02-7	4-Nitrophenol	1	ND		10.0	2.95	29-Oct-09	12:29	JAM
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	3.27	29-Oct-09	12:29	JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	3.05	29-Oct-09	12:29	JAM
930-55-2	N-Nitrosopyrrolidine	1	ND		10.0	2.40	29-Oct-09	12:29	JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		10.0	3.40	29-Oct-09	12:29	JAM
87-86-5	Pentachlorophenol	1	ND		10.0	1.99	29-Oct-09	12:29	JAM
85-01-8	Phenanthrene	1	ND		10.0	3.11	29-Oct-09	12:29	JAM
108-95-2	Phenol	1	ND		10.0	2.88	29-Oct-09	12:29	JAM
129-00-0	Pyrene	1	ND		10.0	3.11	29-Oct-09	12:29	JAM
110-86-1	Pyridine	1	ND		10.0	2.19	29-Oct-09	12:29	JAM
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	2.60	29-Oct-09	12:29	JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		10.0	3.48	29-Oct-09	12:29	JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	2.86	29-Oct-09	12:29	JAM

63 compound(s) reported

10/29/2009 16:57:06

ND denotes Not Detected at or above the adjusted reporting limit or PQL.
MDL denotes method detection limit

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Definitions/Qualifiers

Project: 20101115

Value	Description
Q1	The matrix spike recoveries are poor. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample recovery.
J	This estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit.
U	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
B	This analyte was detected in the method blank.
E	The sample concentration is above the linear calibrated range of the analysis.
ND	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
MDL	The adjusted method detection limit.
LCS(D)	Laboratory Control Sample (Duplicate).
MS(D)	Matrix Spike (Duplicate).
DUP	Sample Duplicate.
RPD	Relative Percent Difference.

20101115 PASI-MINN

Chain of Custody

Workorder: 10115393 **Workorder Name:** 7002 000 OLD LF/CLARK TAILINGS **Owner Received Date:** 10/23/2009 **Results Requested By:** 11/5/2009

Report To

Julie Thieschafer
Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone (612)607-1700
Fax (612)607-6444

Subcontract To

Pace Analytical New Orleans
1000 Riverbend Blvd
Suite F
St. Rose, LA 70087
Phone (504)469-0333

					Preserved Containers	Requested Analysis	
Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Unpreserved	8270	LAB USE ONLY
1	BSB-GW-01	10/21/2009 11:45	10115393001	Water	2	X	
2	BSB-GW-02	10/21/2009 14:38	10115393002	Water	2	X	
3	BSB-GW-03	10/21/2009 15:53	10115393003	Water	2	X	
4	BSB-GW-04	10/22/2009 11:00	10115393004	Water	2	X	
5							

Transfers	Released By	Date/Time	Received By	Date/Time
1		10/23/09 14:35		
2				10/24/09 0900
3				

Comments

see attached list of compounds

Cooler Temperature on Receipt 2.8 °C | Custody Seal [✓ Y] or N | Received on Ice [✓ Y] or N | Samples Intact [✓ Y] or N

20101115 PASI-MINN

Project #: 20

Sample Condition U

Pace Analytical

1000 Riverbend, Blvd., Suite F
St. Rose, LA 70087

Courier: ☐ Pace Courier ☐ Hackbarth ☑ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC] **Custody Seals intact:** ☑Yes ☐No

Therometer Used:
☐ Therm Fisher IR 1
☑ Therm Fisher IR 2
☐ Therm Fisher IR 3

Type of Ice: [✓ Wet] Blue None **Samples on Ice:** [see COC]

Cooler Temperature: [see COC] **Temp should be above freezing to 6°C**

Date and Initials of person examining contents: LN 10/24/09

Temp must be measured from Temperature blank when present

		Comments:
Temperature Blank Present"?	☑Yes ☐No ☐N/A	1
Chain of Custody Present:	☑Yes ☐No ☐N/A	2
Chain of Custody Complete:	☑Yes ☐No ☐N/A	3
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	4
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	5
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	6
Sufficient Volume:	☑Yes ☐No ☐N/A	7
Correct Containers Used:	☑Yes ☐No ☐N/A	8
Filtered vol. Rec. for Diss. tests	☐Yes ☐No ☑N/A	9
Sample Labels match COC:	☑Yes ☐No ☐N/A	10
All containers received within manafacture's precautionary and/or expiration dates.	☑Yes ☐No ☐N/A	11
All containers needing preservation have been checked (except VOA, coliform, & O&G).	☑Yes ☐No ☐N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	13 If No, was preserative added? ☐Yes ☐No If added record lot no.: HNO3 ______ H2SO4 ______
Samples checked for dechlorination:	☐Yes ☑No ☐N/A	14
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	14
Trip Blank Present:	☐Yes ☑No ☐N/A	16
Trip Blank Custody Seals Present	☐Yes ☑No ☐N/A	17
Pace Trip Blank Lot # (if purchased): N/A		18

Client Notification/ Resolution:

Person Contacted: ______________________ Date/Time: ____________

Comments/ Resolution: ______________________

ALLC003rev.05, 12Jun2009 - mod

Report Number
09-308-2026

Midwest Laboratories Inc.®
13611 "B" Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402 334-9121
www.midwestlabs.com

REPORT OF ANALYSIS

For: (8902) PACE ANALYTICAL
(612)607-6384

Mail to:
PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

PO/Proj. #: 10115393
7002 000 OLD LF/CLARK
TAILINGS

Date Reported: 11/04/09
Date Received: 10/26/09
Date Sampled: 10/21/09

Lab Number: 1641852 Sample ID: BSB-GW-01 MBM6-2

Method: EPA 8151 Units: µg/L Analyst: awr Date: 11/04/09

Analysis	**Level Found**	**Detection Limit**	**Analysis**	**Level Found**	**Detection Limit**
MCPA	n.d.	100	Dicamba (Banvel)	n.d.	0.1
MCPP (Mecoprop)	n.d.	100	Dichlorprop	n.d.	0.3
2,4,5-TP (Silvex)	n.d.	0.1	Dinoseb	n.d.	0.2
2,4-D	n.d.	0.2	2,4,5-T	n.d.	0.1
2,4-DB	n.d.	0.8	Pentachlorophenol	n.d.	0.1
Dalapon	n.d.	1.3	Tordon (Picloram)		0.2

Notes:
n.d. - Not Detected.
add'l report (DFT).

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Midwest Laboratories Inc.®
13611 "B" Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402 334-9121
www.midwestlabs.com

Report Number
09-308-2026

REPORT OF ANALYSIS

For: (8902) PACE ANALYTICAL
(612)607-6384

Date Reported: 11/04/09
Date Received: 10/26/09
Date Sampled: 10/21/09

Mail to:
PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

PO/Proj. #: 10115393
7002 000 OLD LF/CLARK
TAILINGS

Lab number: 1641852 Sample ID: BSB-GW-01 MBMG-2

Analysis	**Level Found**	**Units**	**Detection Limit**	**Method**	**Analyst-Date**

Notes:
add'l report (DUAL)

Respectfully Submitted
Heather Ramig
Heather Ramig
Client Service Representative
heather@midwestlabs.com (402)829-9891

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Report Number
09-308-2029

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Page 1 of 4

REPORT OF ANALYSIS

Mail to:
PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

For: (8902) PACE ANALYTICAL
(612)607-6384

PO/Proj. #: 10115393
7002 000 OLD LF/CLARK
TAILINGS

Date Reported: 11/04/09
Date Received: 10/26/09
Date Sampled: 10/21/09

Lab Number: 1641853 Sample ID: BSB-GW-02 BSB-A1

Method: EPA 8151 Units: µg/L Analyst: awr Date: 11/04/09

Analysis	Level Found	Detection Limit	Analysis	Level Found	Detection Limit
MCPA	n.d.	100	Dicamba (Banvel)	n.d.	0.1
MCPP (Mecoprop)	n.d.	100	Dichlorprop	n.d.	0.3
2,4,5-TP (Silvex)	n.d.	0.1	Dinoseb	n.d.	0.2
2,4-D	n.d.	0.2	2,4,5-T	n.d.	0.1
2,4-DB	n.d.	0.8	Pentachlorophenol	n.d.	0.1
Dalapon	n.d.	1.3	Tordon (Picloram)		0.2

Notes:
n.d. - Not Detected.
add'l report (DFT).

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Report Number
09-308-2029

REPORT OF ANALYSIS

For: (8902) PACE ANALYTICAL
(612)607-6384

Date Reported: 11/04/09
Date Received: 10/26/09
Date Sampled: 10/21/09

Mail to:

PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

PO/Proj. #: 10115393
7002 000 OLD LF/CLARK
TAILINGS

Lab number: 1641853 Sample ID: BSB-GW-02 BSB-A1

Analysis	Level Found	Units	Detection Limit	Method	Analyst-Date

Notes:
add'l report (DUAL)

Respectfully Submitted
Heather Ramig
Heather Ramig
Client Service Representative
heather@midwestlabs.com (402)829-9891

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Report Number
09-308-2031

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www.midwestlabs.com

Page 1 of 4

REPORT OF ANALYSIS

For: (8902) PACE ANALYTICAL
(612)607-6384

Mail to:

PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

PO/Proj. #: 10115393
7002 000 OLD LF/CLARK
TAILINGS

Date Reported: 11/04/09
Date Received: 10/26/09
Date Sampled: 10/21/09

Lab Number: 1641854 Sample ID: BSB-GW-03 BSB-A5

Method: EPA 8151 Units: µg/L Analyst: awr Date: 11/04/09

Analysis	Level Found	Detection Limit	Analysis	Level Found	Detection Limit
MCPA	n.d.	100	Dicamba (Banvel)	n.d.	0.1
MCPP (Mecoprop)	n.d.	100	Dichlorprop	n.d.	0.3
2,4,5-TP (Silvex)	n.d.	0.1	Dinoseb	n.d.	0.2
2,4-D	n.d.	0.2	2,4,5-T	n.d.	0.1
2,4-DB	n.d.	0.8	Pentachlorophenol	n.d.	0.1
Dalapon	n.d.	1.3	Tordon (Picloram)		0.2

Notes:
n.d. - Not Detected.
add'l report (DFT).

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Report Number
09-308-2031

REPORT OF ANALYSIS

For: (8902) PACE ANALYTICAL
(612)607-6384

Date Reported: 11/04/09
Date Received: 10/26/09
Date Sampled: 10/21/09

Mail to:
PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

PO/Proj. #: 10115393
7002 000 OLD LF/CLARK
TAILINGS

Lab number: 1641854 Sample ID: BSB-GW-03 BSB-A5

Analysis	**Level Found**	**Units**	**Detection Limit**	**Method**	**Analyst-Date**

Notes:
add'l report (DUAL)

Respectfully Submitted
Heather Ramig
Heather Ramig
Client Service Representative
heather@midwestlabs.com (402)829-9891

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Report Number
09-308-2033

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www.midwestlabs.com

Page 1 of 2

REPORT OF ANALYSIS

For: (8902) PACE ANALYTICAL
(612)607-6384

Mail to:
PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

PO/Proj. #: 10115393
7002 000 OLD LF/CLARK
TAILINGS

Date Reported: 11/04/09
Date Received: 10/26/09
Date Sampled: 10/21/09

Lab Number: 1641855 Sample ID: BSB-GW-04 BSB-A6R

Method: EPA 8151 Units: µg/L Analyst: awr Date: 11/04/09

Analysis	**Level Found**	**Detection Limit**	**Analysis**	**Level Found**	**Detection Limit**
MCPA	n.d.	100	Dicamba (Banvel)	n.d.	0.1
MCPP (Mecoprop)	n.d.	100	Dichlorprop	n.d.	0.3
2,4,5-TP (Silvex)	n.d.	0.1	Dinoseb	n.d.	0.2
2,4-D	1.1	0.2	2,4,5-T	n.d.	0.1
2,4-DB	n.d.	0.8	Pentachlorophenol	n.d.	0.1
Dalapon	n.d.	1.3	Tordon (Picloram)		0.2

Notes:
n.d. - Not Detected.
add'l report (DFT).

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www.midwestlabs.com

Report Number
09-308-2033

Page 2 of 2

REPORT OF ANALYSIS

For: (8902) PACE ANALYTICAL
(612)607-6384

Date Reported: 11/04/09
Date Received: 10/26/09
Date Sampled: 10/21/09

Mail to:
PACE ANALYTICAL
CLIENT SERVICES
1700 ELM ST STE 200
MINNEAPOLIS MN 55414-

PO/Proj. #: 10115393
7002 000 OLD LF/CLARK
TAILINGS

Lab number: 1641855 Sample ID: BSB-GW-04 BSB-A6R

Analysis	Level Found	Units	Detection Limit	Method	Analyst-Date

Notes:
add'l report (DUAL)

Respectfully Submitted
Heather Ramig
Heather Ramig
Client Service Representative
heather@midwestlabs.com (402)829-9891

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Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 10115393 Workorder Name: 7002 000 OLD LF/CLARK TAILINGS Results Requested 11/5/2009

Report / Invoice To
Julie Thieschafer
Pace Analytical Minnesota
1700 Elm Street
Suite 200
Minneapolis, MN 55414
Phone (612)607-1700
Email: julie.thieschafer@pacelabs.com

Subcontract To
Midwest Labs
P.O. 10115393

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers Unpreserved	Requested Analysis 8151 Herbicides	LAB USE ONLY
1	BSB-GW-01	10/21/2009 11:45	10115393001	Water	2		1641852 2
2	BSB-GW-02	10/21/2009 14:38	10115393002	Water	2		1641853 2
3	BSB-GW-03	10/21/2009 15:53	10115393003	Water	2		1641854 2
4	BSB-GW-04	10/22/2009 11:00	10115393004	Water	2		1641855 2
5	TRIP BLANK not received JN		10115393005	Water	2		

Transfers	Released By	Date/Time	Received By	Date/Time
1		10/23/09 14:45		
2				
3				
4				
5				

Comments
-See attached compound list
-J Flag to your MDL

4
1641852 - 1641855

10-24-09 11:35 RCVD
3.8°

Friday, October 23, 2009 2:32:52 PM

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Pace Analytical™
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1135/1136

10115393

Page: 1 of 1

10115393

Section A
Required Client Information:

Company:	Pioneer Technical
Address:	63 1/2 W. Broadway
	Butte, MT 59701
Email To:	sbisch@pioneer-techinical.com
Phone: 406-563-9371	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	- Same -
Copy To:	- Same -
Purchase Order No.:	
Project Name:	Old Landfill/Clark Tail.
Project Number:	7002 000

Section C
Invoice Information: 406-497-6515

Attention:	Gary Keeler
Company Name:	BSB Public Works Dept
Address:	126 W. Granite Butte, Mt. 59701
Pace Quote Reference:	
Pace Project Manager:	Julie Thieschafer
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER MDEQ

Site Location STATE: Mt

Requested Analysis Filtered (Y/N)

Section D
Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3 / Filtered	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	Cyanide	Nitrate+Nitrite	COD	8270	8151	8260	pH, SC, Cl-, SO_4^{-2}	Diss Metals					Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	BSB-GW-01	WT		10/21/09	1145				11	X	X	X	X	X					X	X	X	X	X	X	X	X						10115393001
2	BSB-GW-02	WT		↓	1438				10	X	X		X	X					X	X	X	X	X	X	X							002
3	BSB-GW-03	WT		↓	1553				10	X	X		X	X					X	X	X	X	X	X	X							003
4	BSB-GW-04	WT		10/22/09	1100				10	X	X		X	X					X	X	X	X	X	X	X							004
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Brad Hollamon/PTS	10/22/09	1535	Janies/Pace	10/23/09	1006	1.4°c	y	y	y
							5.2°c			
							4.0°c			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brad Hollamon

SIGNATURE of SAMPLER: Brad Hollamon

DATE Signed (MM/DD/YY): 10/22/09

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-Feb-2007

Sample Condition Upon Receipt

Pace Analytical **Client Name:** Pioneer Tech. **Project #** 10115393

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other ______

Optional
Proj Due Date:
Proj Name:

Tracking #: 795504983250/870680638333/870680638333

Custody Seal on Cooler/Box Present: ☒ yes ☐ no **Seals Intact:** ☒ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other ______ **Temp Blank: Yes** K **No** ______

Thermometer Used 80343042 or [✓ 79425] **Type of Ice:** [✓ Wet] Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 1.4°c/5.2°c/4.0°c **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: SD 10-23-09

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☒Yes ☐No ☐N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing acid/base preservation have been checked. Noncompliance are noted in 13.	☒Yes ☐No ☐N/A	13. ☒ HNO3 ☒ H2SO4 ☒ NaOH ☐ HCl Samp # 1-4 of 4 BSB-GW-01 — BSB-GW-04
All containers needing preservation are found to be in compliance with EPA recommendation.	☒Yes ☐No ☐N/A	
Exceptions: [✓ VOA], Coliform, TOC, Oil and Grease, WI-DRO (water)	☒Yes ☐No	Initial when completed SD — Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☒No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☒No ☐N/A	15.
Trip Blank Present:	☒Yes ☐No ☐N/A	16. headspace in 3 of 4 trip blank vials
Trip Blank Custody Seals Present	☒Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 082609-1		

Client Notification/ Resolution: **Field Data Required?** Y / N

Person Contacted: Brad Date/Time: 10/23/09

Comments/ Resolution: Emailed to see if they want us to run the trip blanks since they aren't on the COC. Brad said they should want trip blanks ran.

Project Manager Review: **Date:** 10/23/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the

F-L213Rev.00, 05Aug2009

Pace Analytical Services, Inc.
1700 Elm Street SE, Suite 200, Minneapolis, MN 55414

4024462

Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 10115393 **Workorder Name:** 7002 000 OLD LF/CLARK TAILINGS **Owner Received Date:** 10/23/2009 **Results Requested By:** 11/5/2009

Report To	Subcontract To
Julie Thieschafer Pace Analytical Services, Inc. 1700 Elm Street, Suite 200 Minneapolis, MN 55414 Phone (612)607-1700 Fax (612)607-6444	Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436

10/23/09

Item	Sample ID		Collect Date/Time	Lab ID	Matrix	Preserved Containers ~~Other~~ NaOH	Requested Analysis Cyanide (Total)	LAB USE ONLY
1	BSB-GW-01	001	10/21/2009 11:45	10115393001	Water	1	X	1-250ml g
2	BSB-GW-02	002	10/21/2009 14:38	10115393002	Water	1	X	↓
3	BSB-GW-03	003	10/21/2009 15:53	10115393003	Water	1	X	
4	BSB-GW-04	004	10/22/2009 11:00	10115393004	Water	1	X	
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1		10/23/09 14:35		
2	WAX 10	10/24/09 ~~[illegible]~~ 1000		10/24/09 ~~[illegible]~~ 1000
3				

Comments

J Flag to MDL

rc

4024462

Cooler Temperature on Receipt ____ °C | Custody Seal Y or N | Received on Ice Y or N | Samples Intact Y or N

Pace Analytical®

Sample Condition Upon Receipt

Client Name: PACE - MN Project # 4024462

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☒ Commercial ☐ Pace Other ______

Tracking #: ______

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None Other

Optional
Proj. Due Date:
Proj. Name:

Thermometer Used 4b

Type of Ice: [✓ Wet] Blue Dry None

☐ Samples on ice, cooling process has begun

Cooler Temperature 1°C

Biological Tissue is Frozen: ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Temp should be above freezing to 6°C for all sample except Biota.
Biota Samples should be received ≤ 0°C.

Person examining contents:
Date: 10/24/09
Initials: AE

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☒No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☒Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☒Yes ☐No ☐N/A	pH'd in MN
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): ______		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: ______ Date/Time: ______

Comments/ Resolution: ______

Project Manager Review: ______ **Date:** 10/26/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

F-ALL-C-006-Rev.04 (12Aug2009) SCUR Form

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

November 05, 2009

Shawn Bisch
PIONEER-MT
307 E. Park Ave
Suite 421
Anaconda, MT 59711

RE: Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

Dear Shawn Bisch:

Enclosed are the analytical results for sample(s) received by the laboratory on October 23, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julie Thieschafer

julie.thieschafer@pacelabs.com
Project Manager

Enclosures

CERTIFICATIONS

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

Minnesota Certification IDs

1700 Elm Street SE, Suite 200 Minneapolis, MN 55414
Alaska Certification #: UST-078
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092

Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Wisconsin Certification #: 999407970

SAMPLE SUMMARY

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10115391001	**BSB-GW-05**	Water	10/22/09 15:05	10/23/09 10:06
10115391002	**BSB-GW-06**	Water	10/22/09 13:38	10/23/09 10:06

SAMPLE ANALYTE COUNT

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10115391001	**BSB-GW-05**	ASTM D516-02	ACH	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		EPA 200.8	RJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		SM 4500-Cl E	ACH	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M
10115391002	**BSB-GW-06**	ASTM D516-02	ACH	1	PASI-M
		EPA 120.1	MWD	1	PASI-M
		EPA 200.8	RJS	16	PASI-M
		EPA 245.1	TEM	1	PASI-M
		SM 4500-Cl E	ACH	1	PASI-M
		SM 4500-H+B	MWD	1	PASI-M

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PROJECT NARRATIVE

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

Method: **EPA 200.8**
Description: 200.8 MET ICPMS, Dissolved
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
2 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/17960

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10115391001,10115469008

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 702527)
  - Iron, Dissolved
  - Zinc, Dissolved
- MS (Lab ID: 702529)
  - Barium, Dissolved
  - Zinc, Dissolved
- MSD (Lab ID: 702528)
  - Iron, Dissolved
  - Zinc, Dissolved

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

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Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

Method: **EPA 200.8**
Description: 200.8 MET ICPMS, Dissolved
Client: BPAR-PIONEER-MT
Date: November 05, 2009

Additional Comments:
2 samples were analyzed for EPA 200.8. The samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preservation:
The samples were preserved in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: [illegible]

Matrix spike and matrix spike duplicate (MS/MSD) were performed on the following samples [illegible]

MS: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS [illegible]
  - Mercury, Dissolved
- MS [illegible]
  - Mercury, Dissolved
- MSD [illegible]
  - Mercury, Dissolved

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

PROJECT NARRATIVE

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

Method: **EPA 245.1**
Description: 245.1 Mercury, Dissolved
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
2 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MERP/3943

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10115391001,10115469016

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 702500)
  - Mercury, Dissolved
- MS (Lab ID: 702502)
  - Mercury, Dissolved
- MSD (Lab ID: 702501)
  - Mercury, Dissolved

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

Method: **EPA 120.1**
Description: 120.1 Specific Conductance
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
2 samples were analyzed for EPA 120.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project:	BP OLD LANDFILL CLARK TAILINGS
Pace Project No.:	10115391

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
2 samples were analyzed for SM 4500-H+B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated more than 15 minutes after sample collection.
- BSB-GW-05 (Lab ID: 10115391001)
- BSB-GW-06 (Lab ID: 10115391002)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

Method: **ASTM D516-02**
Description: ASTM D516-90 Sulfate Water
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
2 samples were analyzed for ASTM D516-02. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/8573

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10115322002,10115393001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 706071)
  - Sulfate
- MS (Lab ID: 706073)
  - Sulfate
- MSD (Lab ID: 706072)
  - Sulfate

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

PROJECT NARRATIVE

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

Method: **SM 4500-Cl E**
Description: SM4500Cl-E Chloride
Client: BPAR-PIONEER-MT
Date: November 05, 2009

General Information:
2 samples were analyzed for SM 4500-Cl E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

ANALYTICAL RESULTS

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

Sample: BSB-GW-05 **Lab ID: 10115391001** Collected: 10/22/09 15:05 Received: 10/23/09 10:06 Matrix: Water

CLK-1

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Antimony, Dissolved	ND	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:07	7440-36-0	
Arsenic, Dissolved	**0.17**	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:07	7440-38-2	
Barium, Dissolved	**0.024**	mg/L	0.00030	0.00015	1	11/02/09 12:31	11/03/09 00:07	7440-39-3	
Beryllium, Dissolved	**0.00050**	mg/L	0.00020	0.00010	1	11/02/09 12:31	11/03/09 19:14	7440-41-7	
Cadmium, Dissolved	**0.022**	mg/L	0.000080	0.000040	1	11/02/09 12:31	11/03/09 00:07	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:07	7440-47-3	
Cobalt, Dissolved	**0.053**	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:07	7440-48-4	
Copper, Dissolved	**0.0031**	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:07	7440-50-8	
Iron, Dissolved	**20.6**	mg/L	0.050	0.025	1	11/02/09 12:31	11/03/09 00:07	7439-89-6	M0
Lead, Dissolved	**0.00019**	mg/L	0.00010	0.000050	1	11/02/09 12:31	11/03/09 00:07	7439-92-1	
Nickel, Dissolved	**0.041**	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:07	7440-02-0	
Selenium, Dissolved	ND	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:07	7782-49-2	
Silver, Dissolved	**0.000079J**	mg/L	0.00050	0.000026	1	11/02/09 12:31	11/03/09 00:07	7440-22-4	
Thallium, Dissolved	ND	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:07	7440-28-0	
Vanadium, Dissolved	**0.00039**	mg/L	0.00010	0.000050	1	11/02/09 12:31	11/03/09 00:07	7440-62-2	
Zinc, Dissolved	**84.0**	mg/L	12.5	6.2	2500	11/02/09 12:31	11/03/09 19:26	7440-66-6	M0
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	ND	mg/L	0.00020	0.00010	1	10/29/09 19:39	11/03/09 10:50	7439-97-6	M0
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**2110**	umhos/cm	1.0	0.50	1		10/26/09 17:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.1**	Std. Units	0.10		1		10/26/09 16:55		H6
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**1090**	mg/L	125	62.5	50		11/02/09 13:48	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**32.5**	mg/L	2.0	1.0	1		10/29/09 16:50	16887-00-6	

ANALYTICAL RESULTS

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

Sample: BSB-GW-06 **Lab ID: 10115391002** Collected: 10/22/09 13:38 Received: 10/23/09 10:06 Matrix: Water

CLK2

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, Dissolved	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Antimony, Dissolved	ND	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:27	7440-36-0	
Arsenic, Dissolved	**0.0018**	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:27	7440-38-2	
Barium, Dissolved	**0.018**	mg/L	0.00030	0.00015	1	11/02/09 12:31	11/03/09 00:27	7440-39-3	
Beryllium, Dissolved	ND	mg/L	0.00020	0.00010	1	11/02/09 12:31	11/03/09 19:30	7440-41-7	
Cadmium, Dissolved	**0.00086**	mg/L	0.000080	0.000040	1	11/02/09 12:31	11/03/09 00:27	7440-43-9	
Chromium, Dissolved	**0.00026J**	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:27	7440-47-3	
Cobalt, Dissolved	**0.00032J**	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:27	7440-48-4	
Copper, Dissolved	**0.0044**	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:27	7440-50-8	
Iron, Dissolved	ND	mg/L	0.050	0.025	1	11/02/09 12:31	11/03/09 00:27	7439-89-6	
Lead, Dissolved	**0.000081J**	mg/L	0.00010	0.000050	1	11/02/09 12:31	11/03/09 00:27	7439-92-1	
Nickel, Dissolved	**0.025**	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:27	7440-02-0	
Selenium, Dissolved	ND	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:27	7782-49-2	
Silver, Dissolved	ND	mg/L	0.00050	0.000026	1	11/02/09 12:31	11/03/09 00:27	7440-22-4	
Thallium, Dissolved	ND	mg/L	0.00050	0.00025	1	11/02/09 12:31	11/03/09 00:27	7440-28-0	
Vanadium, Dissolved	**0.0023**	mg/L	0.00010	0.000050	1	11/02/09 12:31	11/03/09 00:27	7440-62-2	
Zinc, Dissolved	**0.51**	mg/L	0.025	0.012	5	11/02/09 12:31	11/03/09 00:31	7440-66-6	
245.1 Mercury, Dissolved	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury, Dissolved	ND	mg/L	0.00020	0.00010	1	10/29/09 19:39	11/03/09 10:54	7439-97-6	
120.1 Specific Conductance	Analytical Method: EPA 120.1								
Specific Conductance	**1790**	umhos/cm	1.0	0.50	1		10/28/09 16:50		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**6.3**	Std. Units	0.10		1		10/26/09 16:55		H6
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-02								
Sulfate	**786**	mg/L	87.5	43.8	35		11/02/09 13:52	14808-79-8	
SM4500Cl-E Chloride	Analytical Method: SM 4500-Cl E								
Chloride	**61.3**	mg/L	4.0	2.0	2		10/29/09 16:59	16887-00-6	

QUALITY CONTROL DATA

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

QC Batch: MPRP/17960
Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8
Analysis Description: 200.8 MET Dissolved
Associated Lab Samples: 10115391001, 10115391002

METHOD BLANK: 702525
Matrix: Water
Associated Lab Samples: 10115391001, 10115391002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Arsenic, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Barium, Dissolved	mg/L	ND	0.00030	11/03/09 19:55	
Beryllium, Dissolved	mg/L	ND	0.00020	11/03/09 19:55	
Cadmium, Dissolved	mg/L	ND	0.000080	11/02/09 23:59	
Chromium, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Cobalt, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Copper, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Iron, Dissolved	mg/L	ND	0.050	11/02/09 23:59	
Lead, Dissolved	mg/L	ND	0.00010	11/02/09 23:59	
Nickel, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Selenium, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Silver, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Thallium, Dissolved	mg/L	ND	0.00050	11/02/09 23:59	
Vanadium, Dissolved	mg/L	ND	0.00010	11/02/09 23:59	
Zinc, Dissolved	mg/L	ND	0.0050	11/02/09 23:59	

LABORATORY CONTROL SAMPLE: 702526

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	.08	0.080	100	85-115	
Arsenic, Dissolved	mg/L	.08	0.078	98	85-115	
Barium, Dissolved	mg/L	.08	0.080	100	85-115	
Beryllium, Dissolved	mg/L	.08	0.083	103	85-115	
Cadmium, Dissolved	mg/L	.08	0.080	100	85-115	
Chromium, Dissolved	mg/L	.08	0.080	99	85-115	
Cobalt, Dissolved	mg/L	.08	0.080	100	85-115	
Copper, Dissolved	mg/L	.08	0.080	100	85-115	
Iron, Dissolved	mg/L	1	1.0	101	85-115	
Lead, Dissolved	mg/L	.08	0.084	105	85-115	
Nickel, Dissolved	mg/L	.08	0.081	101	85-115	
Selenium, Dissolved	mg/L	.08	0.079	99	85-115	
Silver, Dissolved	mg/L	.08	0.080	100	85-115	
Thallium, Dissolved	mg/L	.08	0.080	101	85-115	
Vanadium, Dissolved	mg/L	.08	0.080	100	85-115	
Zinc, Dissolved	mg/L	.08	0.082	103	85-115	

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QUALITY CONTROL DATA

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 702527 702528

Parameter	Units	10115391001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony, Dissolved	mg/L	ND	.08	.08	0.084	0.083	104	104	70-130	0	20	
Arsenic, Dissolved	mg/L	0.17	.08	.08	0.24	0.24	92	90	70-130	0	20	
Barium, Dissolved	mg/L	0.024	.08	.08	0.11	0.10	102	100	70-130	2	20	
Beryllium, Dissolved	mg/L	0.00050	.08	.08	0.080	0.081	99	101	70-130	1	20	
Cadmium, Dissolved	mg/L	0.022	.08	.08	0.10	0.10	102	102	70-130	1	20	
Chromium, Dissolved	mg/L	ND	.08	.08	0.079	0.078	98	98	70-130	1	20	
Cobalt, Dissolved	mg/L	0.053	.08	.08	0.13	0.13	101	100	70-130	1	20	
Copper, Dissolved	mg/L	0.0031	.08	.08	0.081	0.080	97	96	70-130	1	20	
Iron, Dissolved	mg/L	20.6	1	1	22.5	22.3	189	166	70-130	1	20	M0
Lead, Dissolved	mg/L	0.00019	.08	.08	0.082	0.081	102	101	70-130	1	20	
Nickel, Dissolved	mg/L	0.041	.08	.08	0.12	0.12	102	102	70-130	0	20	
Selenium, Dissolved	mg/L	ND	.08	.08	0.082	0.082	102	103	70-130	0	20	
Silver, Dissolved	mg/L	0.000079J	.08	.08	0.076	0.076	95	95	70-130	0	20	
Thallium, Dissolved	mg/L	ND	.08	.08	0.080	0.078	99	98	70-130	1	20	
Vanadium, Dissolved	mg/L	0.00039	.08	.08	0.081	0.080	100	100	70-130	1	20	
Zinc, Dissolved	mg/L	84.0	.08	.08	72.3	72.0	-14594	-14969	70-130	0	20	M0

MATRIX SPIKE SAMPLE: 702529

Parameter	Units	10115469008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	0.33J ug/L	.08	0.081	101	70-130	
Arsenic, Dissolved	mg/L	0.0044	.08	0.084	100	70-130	
Barium, Dissolved	mg/L	39.8 ug/L	.08	0.15	144	70-130	M0
Beryllium, Dissolved	mg/L	ND	.08	0.082	103	70-130	
Cadmium, Dissolved	mg/L	0.000042J	.08	0.081	102	70-130	
Chromium, Dissolved	mg/L	0.27J ug/L	.08	0.079	98	70-130	
Cobalt, Dissolved	mg/L	1.1 ug/L	.08	0.082	101	70-130	
Copper, Dissolved	mg/L	0.0037	.08	0.085	102	70-130	
Iron, Dissolved	mg/L	0.18	1	1.3	107	70-130	
Lead, Dissolved	mg/L	0.00021	.08	0.082	102	70-130	
Nickel, Dissolved	mg/L	0.54 ug/L	.08	0.083	103	70-130	
Selenium, Dissolved	mg/L	ND	.08	0.083	104	70-130	
Silver, Dissolved	mg/L	ND	.08	0.079	99	70-130	
Thallium, Dissolved	mg/L	ND	.08	0.079	99	70-130	
Vanadium, Dissolved	mg/L	2.1 ug/L	.08	0.082	99	70-130	
Zinc, Dissolved	mg/L	0.014	.08	0.27	317	70-130	M0

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QUALITY CONTROL DATA

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

QC Batch: WETA/8561
QC Batch Method: SM 4500-Cl E
Associated Lab Samples: 10115391001, 10115391002
Analysis Method: SM 4500-Cl E
Analysis Description: SM4500Cl-E Chloride

METHOD BLANK: 704336
Matrix: Water
Associated Lab Samples: 10115391001, 10115391002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	2.0	10/29/09 16:41	

LABORATORY CONTROL SAMPLE: 704337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	30	31.4	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 704338 704339

Parameter	Units	10114979005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	22.1	30	30	51.3	51.5	97	98	80-120	0	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 704340 704341

Parameter	Units	10115300009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	17.5	30	30	48.0	48.3	102	103	80-120	1	30	

QUALITY CONTROL DATA

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

QC Batch: WET/17521
QC Batch Method: EPA 120.1
Analysis Method: EPA 120.1
Analysis Description: 120.1 Specific Conductance
Associated Lab Samples: 10115391001

METHOD BLANK: 702403
Matrix: Water
Associated Lab Samples: 10115391001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	0.65J	1.0	10/26/09 17:20	

LABORATORY CONTROL SAMPLE: 702404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	1000	100	90-110	

SAMPLE DUPLICATE: 702405

Parameter	Units	10114989001 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	8.1	7.9	2	20	

SAMPLE DUPLICATE: 702406

Parameter	Units	10115082001 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	1.9	1.9	1	20	

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QUALITY CONTROL DATA

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

QC Batch: WETA/8573
QC Batch Method: ASTM D516-02
Analysis Method: ASTM D516-02
Analysis Description: ASTM D516-9002 Sulfate Water
Associated Lab Samples: 10115391001, 10115391002

METHOD BLANK: 706069
Matrix: Water
Associated Lab Samples: 10115391001, 10115391002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.5	11/02/09 13:04	

LABORATORY CONTROL SAMPLE: 706070

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7.5	7.5	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 706071 706072

Parameter	Units	10115322002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	55.5	20	20	81.8	82.4	132	135	80-120	1	30	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 706073 706074

Parameter	Units	10115393001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	175	20	20	200	198	122	112	80-120	1	30	M0

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QUALITY CONTROL DATA

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

QC Batch: WET/17530
QC Batch Method: EPA 120.1
Associated Lab Samples: 10115391002
Analysis Method: EPA 120.1
Analysis Description: 120.1 Specific Conductance

METHOD BLANK: 702811
Matrix: Water
Associated Lab Samples: 10115391002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	0.74J	1.0	10/28/09 16:50	

LABORATORY CONTROL SAMPLE: 702812

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	1030	103	90-110	

SAMPLE DUPLICATE: 702813

Parameter	Units	10115391002 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	1790	1790	0	20	

QUALITY CONTROL DATA

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

QC Batch: MERP/3943
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury - Dissolved
Associated Lab Samples: 10115391001, 10115391002

METHOD BLANK: 702498
Matrix: Water
Associated Lab Samples: 10115391001, 10115391002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	ND	0.00020	11/03/09 10:47	

LABORATORY CONTROL SAMPLE: 702499

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	.005	0.0053	106	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 702500 702501

Parameter	Units	10115391001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	mg/L	ND	.005	.005	0.0062	0.0064	123	128	85-115	3	20	M0

MATRIX SPIKE SAMPLE: 702502

Parameter	Units	10115469016 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	ND	.005	0.0061	123	85-115	M0

QUALITY CONTROL DATA

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

QC Batch: WET/17522
Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Associated Lab Samples: 10115391001, 10115391002

LABORATORY CONTROL SAMPLE: 702409

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	5	5.0	100	98-102	H6

SAMPLE DUPLICATE: 702407

Parameter	Units	10115293001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.6	1	3	H6

SAMPLE DUPLICATE: 702408

Parameter	Units	10115300001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.6	6.6	0	3	H6

QUALIFIERS

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

H6	Analysis initiated more than 15 minutes after sample collection.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BP OLD LANDFILL CLARK TAILINGS
Pace Project No.: 10115391

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10115391001	**BSB-GW-05**	EPA 120.1	WET/17521		
10115391001	**BSB-GW-05**	SM 4500-H+B	WET/17522		
10115391002	**BSB-GW-06**	SM 4500-H+B	WET/17522		
10115391001	**BSB-GW-05**	EPA 245.1	MERP/3943	EPA 245.1	MERC/4800
10115391002	**BSB-GW-06**	EPA 245.1	MERP/3943	EPA 245.1	MERC/4800
10115391001	**BSB-GW-05**	EPA 200.8	MPRP/17960	EPA 200.8	ICPM/7398
10115391002	**BSB-GW-06**	EPA 200.8	MPRP/17960	EPA 200.8	ICPM/7398
10115391002	**BSB-GW-06**	EPA 120.1	WET/17530		
10115391001	**BSB-GW-05**	SM 4500-Cl E	WETA/8561		
10115391002	**BSB-GW-06**	SM 4500-Cl E	WETA/8561		
10115391001	**BSB-GW-05**	ASTM D516-02	WETA/8573		
10115391002	**BSB-GW-06**	ASTM D516-02	WETA/8573		

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Atlantic Richfield Company
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Laboratory Management Program LaMP Chain of Custody Record

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Page 1 of 1

BP/ARC Project Name: Old Landfill Clark Tailings

BP/ARC Facility No:

Req Due Date (mm/dd/yy):

Rush TAT: Yes ___ No X

Lab Work Order Number: 10115391

Lab Name: Pace Analytical Services	BP/ARC Facility Address:	Consultant/Contractor: Pioneer Technical
Lab Address: 1700 Elm Street	City, State, ZIP Code: Butte, Mt. 59701	Consultant/Contractor Project No:
Lab PM: Julie Thieschafer	Lead Regulatory Agency: MDEQ	Address: 63 1/3 W. Boradway Butte, MT 59701
Lab Phone: 612-607-6363	California Global ID No.:	Consultant/Contractor PM: Shawn Bisch
Lab Shipping Accnt:	Enfos Proposal No:	Phone: 406-563-9371
Lab Bottle Order No: 32440	Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___	Email EDD To: sbisch@pioneer-technical
Other Info:	Stage: Activity:	Invoice To: BP/ARC x Contractor ___
BP/ARC EBM:		
EBM Phone:		
EBM Email:		

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Total Number of Containers	Unpreserved	H_2SO_4	HNO_3 / Filtered	HCl	Methanol	pH, Conductivity, Chloride, SO4	Dissolved Metals	Comments
	BSB-GW-05	10/22/09	1505		X		2	X		X			X	X	10115391001
	BSB-GW-06	↓	1338		X		2	X		X			X	X	002

Report Type & QC Level

Standard ___

Full Data Package ___

Comments

Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.

Sampler's Name: Brad Hollamon

Sampler's Company: Pioneer Techinical

Shipment Method: FedE

Ship Date: 10/22/09

Shipment Tracking No: 870680638322

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Brad Hollamon/PTS	10/22/09	1535	Shawn Davis/Pace	10-23-09	1006

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: [✓ Yes] / No | Temp Blank: [✓ Yes] No | Cooler Temp on Receipt: 1.4 c °F/[✓ C] | Trip Blank: Yes / [✓ No] | MS/MSD Sample Submitted: Yes [✓ No]

BP/ARC LaMP COC Rev. 6 01/01/2009

Sample Condition Upon Receipt - ESI Tech Specs

Pace Analytical

Client Name: BP

Project # 10115391

[redacted]

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other ______

Tracking #: 7955 0498 3250

Custody Seal on Cooler/Box Present: ☒ yes ☐ no **Seals intact:** ☒ yes ☐ no

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other ______ **Temp. Blank** Yes X No ______

Thermometer Used 80344042 or [✓ 179425] **Type of Ice:** [✓ Wet] Blue None ☐ **Samples on ice, cooling process has begun**

Cooler Temperature 1.4°C **Biological Tissue is Frozen:** Yes No

Temp should be above freezing ≤ 6°C

Date and Initials of person examining contents: OO 10-23-09

Comments:

Chain of Custody Present:	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes	☐ No	☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume: triple volume provided for MS/MSD	☐ Yes	☐ No	☒ N/A	8.
Correct Containers Used:	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used:	☒ Yes	☐ No	☐ N/A	
Containers Intact:	☒ Yes	☐ No	☐ N/A	10.
Filtered volume received for Dissolved tests	☒ Yes	☐ No	☐ N/A	11.
Sample Labels match COC:	☒ Yes	☐ No	☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation have been checked.	☒ Yes	☐ No	☐ N/A	13. ☒ HNO3 ☐ H2SO4 ☐ NaOH ☐ HCl Samp # 1&2 of 2 BSB-GW-05 BSB-GW-06
All containers needing preservation are found to be in compliance with EPA recommendation.	☒ Yes	☐ No	☐ N/A	
Per method, VOA pH is checked after analysis				Initial when completed SO Lot # of added preservative
Samples checked for dechlorination:	☐ Yes	☒ No	☐ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes	☐ No	☒ N/A	15.
3 Trip Blanks Present:	☐ Yes	☒ No	☐ N/A	16.
Trip Blank Custody Seals Present	☐ Yes	☐ No	☒ N/A	
Pace Trip Blank Lot # (if purchased):______				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: ______ Date/Time: ______

Comments/ Resolution:

Temp Log: Temp must be maintained at <6 C during login, record temp every 20 mins

Opened time: 1153 Temp: 1.4°c

Time: 1158 put in cooler

Time: Temp:

Project Manager Review: ______ **Date:** 10/23/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR

Form L210Rev.02, 17Jun2008

ICV Sol.#: 7432-1164 Time Out: 9:30 PM Hot Block ID:: 3

Thursday, October 29, 2009

Minnesota Laboratory

H2SO4: 086881
HCL: N/A
HNO3: 1109060
Digestion Tube Lot #: A905LS269

Potassium Persulfate: 7432-1147
Potassium Permanganate: 7432-1165
Stannous Chloride: 7432-1132
Hydroxylamine Hydrochloride: 7432-1134

Analyst	Sample ID	Average	Client	Absorbance	Prep. Date	QC Batch	Initial Wt./Vol (g or ml)	Final Vol. (ml)	Project No.	Comments
					10/29/2009					
YT1	702498		Quality Control		10/29/2009	3943	30	30		/
YT1	702499		Quality Control		10/29/2009	3943	30	30		/
YT1	10115391001		BPAR-PIONEER-MT		10/29/2009	3943	30	30	10115391	/
YT1	702500		Quality Control		10/29/2009	3943	30	30		/
YT1	702501		Quality Control		10/29/2009	3943	30	30		/
YT1	10115391002		BPAR-PIONEER-MT		10/29/2009	3943	30	30	10115391	/
YT1	10115393001		BPAR-PIONEER-MT		10/29/2009	3943	30	30	10115393	/
YT1	10115469001		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469002		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469003		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469004		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469005		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469006		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469007		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469008		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469009		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469010		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469011		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469012		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469013		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469014		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469015		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	10115469016		[redacted]		10/29/2009	3943	30	30	10115469	/
YT1	702502		Quality Control		10/29/2009	3943	30	30		/
	0.0 ppb		Cal Blk				0	30		
	0.2 ppb		Cal 1				0.06	30		
	0.5 ppb		Cal 2				0.15	30		
	1.0 ppb		Cal 3				0.30	30		
	5.0 ppb		Cal 4				1.5	30		
	10 ppb		Cal 5				3.0	30		
	1.0 ppb		ICV/CCV 1				1.0	30		
	0.0 ppb		ICB/CCB 1				0.0	30		
	1.0 ppb		ICV/CCV 2				1.0	30		
	0.0 ppb		ICB/CCB 2				0.0	30		

Peer Review ______________

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A
Required Client Information:

Company:	Pioneer Technical
Address:	63 1/2 W. Broadway Butte, MT 59701
Email To:	sbisch@pioneer-techinical.com
Phone: 406-563-9331	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	- Same -
Copy To:	- Same -
Purchase Order No.:	
Project Name:	Old Landfill/Clark Tail.
Project Number:	7002 000

Section C
Invoice Information: 406-497-6515

Attention:	Gary Keeler
Company Name:	BSB Public Works Dept
Address:	126 W. Granite Butte, MT. 59701
Pace Quote Reference:	
Pace Project Manager:	Julie Thieschafer
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER MDEQ

Site Location STATE: Mt

Section D
Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3 / Filtered	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	↕Analysis Test↕ Y/N↓	Cyanide	Nitrate+Nitrite	COD	8270	8151	8260	pH, SC, Cl, SO4	Dis. Metals					Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	BSB-GW-01	WT		10-21-09	1145				11	Y	Y	Y	Y	Y					Y	Y	Y	Y	Y	Y	Y	Y						
2	BSB-GW-02	WT		|	1438				10	Y	Y		Y	Y					Y	Y	Y	Y	Y	Y	Y							
3	BSB-GW-03	WT		↓	1555				10	Y	Y		Y	Y					Y	Y	Y	Y	Y	Y	Y							
4	BSB-GW-04	WT		10-22-09	1100				10	Y	Y		Y	Y					Y	Y	Y	Y	Y	Y	Y							
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Brad Hollamon / PTC	10/22/09	1535							
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brad Hollamon
SIGNATURE of SAMPLER: Brad Hollamon
DATE Signed (MM/DD/YY): 10/22/09

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

Page 1 of 1

BP/ARC Project Name: Old Landfill Clark Tailings

Req Due Date (mm/dd/yy): ______ **Rush TAT:** Yes ___ No X

BP/ARC Facility No: ______

Lab Work Order Number: ______

Lab Name: Pace Analytical Services	BP/ARC Facility Address:	Consultant/Contractor: Pioneer Technical
Lab Address: 1700 Elm Street	City, State, ZIP Code: Butte, MT. 59701	Consultant/Contractor Project No:
Lab PM: Julie Thieschafer	Lead Regulatory Agency: MDEQ	Address: 63 1/3 W. Boradway Butte, MT 59701
Lab Phone: 612-607-6363	California Global ID No.:	Consultant/Contractor PM: Shawn Bisch
Lab Shipping Accnt:	Enfos Proposal No:	Phone: 406-563-9371
Lab Bottle Order No: 32440	Accounting Mode: Provision ___ OOC-BU ___ OOC-RM ___	Email EDD To: sbisch@pioneer-technical
Other Info:	Stage: Activity:	Invoice To: BP/ARC x___ Contractor ___
BP/ARC EBM:		
EBM Phone:		
EBM Email:		

Report Type & QC Level

Standard ___

Full Data Package ___

				Matrix				**No. Containers / Preservative**							**Requested Analyses**										**Comments**
Lab No.	**Sample Description**	**Date**	**Time**	Soil / Solid	Water / Liquid	Air / Vapor		Total Number of Containers	Unpreserved	H_2SO_4	HNO_3 / Filtered	HCl	Methanol		pH, Conductivity, Chloride, SO4	Dissolved Metals									Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.
	BSB-GW-05	10/22/09	1505		X			2	X		X				X	X									
	BSB-GW-06	↓	1338		X			2	X		X				X	X									

	Relinquished By / Affiliation	**Date**	**Time**	**Accepted By / Affiliation**	**Date**	**Time**
Sampler's Name: Brad Hollamon						
Sampler's Company: Pioneer Techinical	Brad Hollamon / PTC	10/22/09	1535			
Shipment Method: Fed E Ship Date: 10/22/09						
Shipment Tracking No: 8706 8063 9322						

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

Closed

County Silver Bow
Facility & # Butte-Silver Bow #20

Closure
Finan Assur
GW Corr Meas
[✓ GW Monitoring]
GW Reports
Inspections
Other: ____________________
____

Landfarm
Liner
Methane
O & M
Run-on

Van Oort, Martin

From: Brad Hollamon [bhollamon@pioneer-technical.com]
Sent: Tuesday, March 16, 2010 2:46 PM
To: Van Oort, Martin
Cc: 'Shawn Bisch'
Subject: BSB Old Landfill Sampling

Martin,

The semi-annual sampling for the Old Landfill is tentatively scheduled for 3/31- 4/01. This may be pushed back a week further into April due to conflicting sampling schedules.
Please let me know if this will cause any problems or concerns.

Brad Hollamon
Senior Technician
Pioneer Technical Services
406-490-7678

Closed

County Silver Bow #20

Facility & # Butte-Silver Bow

Closure
Finan Assur
GW Corr Meas
[✓ GW Monitoring]
GW Reports
Inspections
Other: ______________________
____

Landfarm
Liner
Methane
O & M
Run-on

Van Oort, Martin

From: Brad Hollamon [bhollamon@pioneer-technical.com]
Sent: Wednesday, October 07, 2009 10:52 AM
To: Van Oort, Martin
Subject: Old Landfill/Clark Tailings

Martin,

Pioneer Technical Services personnel will be sampling the Old Landfill/Clark Tailings site the week of 10/12 or 10/19/09 depending on weather conditions.
If you have any questions or concerns please feel free to contact me.

Thanks,

Brad Hollamon
Pioneer Technical Services
406-490-7678